

# AGRICULTURAL OUTLOOK

Economic Research Service  
United States Department of Agriculture

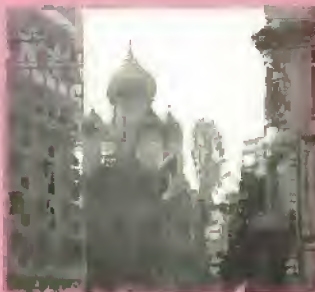
December 1992

**U.S. GRAIN QUALITY**

***FITNESS for COMPETITION***



# AGRICULTURAL OUTLOOK



Cover photo:  
Grain sorghum heads,  
just after emergence

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## News of Grain Quality, U.S.-EC Oilseed Dispute, and Ag Performance in the CEE's and FSU

**W**ith harvest in the Northern Hemisphere mostly complete, several U.S. crops are expected to post records or near-records in output and yields. A record-large U.S. corn crop—25 percent higher than in 1991/92—is expected to boost world coarse grain output, despite declines in several countries. U.S. wheat output in 1992 is also up—24 percent over 1991's reduced level. The U.S. advance, combined with a bigger crop in the former Soviet Union, would raise world wheat output to more than 553 million tons, offsetting production declines in Canada, Argentina, and Europe.

Strong demand for protein meals in several Asian countries, along with tightening global supplies of other oilseeds, is expected to stimulate soybean demand. Prospects are favorable for an increased U.S. share of oilseed product exports, particularly with short supplies in South America until harvest in early 1993.

Meanwhile, agreement was reached to settle a U.S.-EC trade dispute over oilseeds that simmered over 5 years and heated up in recent months. The dispute centered on EC subsidies to oilseed producers, at prices well above world market levels. The subsidies have provided a generous incentive to increase EC oilseed output, displacing imports of oilseeds from the U.S. and other oilseed-exporting countries.

On November 5, the U.S. had announced it would withdraw trade concessions by assessing prohibitive duties of 200 percent on about \$300 million in goods imported from the EC unless the oilseeds dispute were resolved by December 5. The 30-day grace period allowed time for further negotiations. But if implemented, retaliatory tariffs would have been placed on U.S. imports of white wine, rapeseed oil, and wheat gluten from the EC.

In fiercely competitive global grain markets, how important is quality in competitiveness and market share? U.S. grades



and standards defining grain quality for export were initiated over 75 years ago. Concerns have arisen that changes in grades and standards do not address characteristics needed for new products.

Critics of the current system of grades and standards argue that U.S. competitiveness could be compromised if quality concerns of foreign customers are not addressed. Others point out that the U.S. system of grades and standards is only one of many levels of quality control in the U.S. grain sector, and that changes in grades and standards alone are not likely to ensure quality competitiveness.

While quality is a key concern in some markets, grain quantity—and restoring market balance—are pressing issues in the republics of the former Soviet Union (FSU) and the countries of Central and Eastern Europe (CEE). Three years have elapsed since political upheaval shook the CEE's, and in that time they have liberalized prices of most farm commodities, passed land reform legislation, and democratized political processes.

With few exceptions, CEE economies are beginning to show signs of improvement—inflation is slowing, and gross domestic product (GDP) is expected to begin growing again in the near term. But in 1992, with plantings of many crops reduced due to surplus production in 1991 and confusion over land ownership, drought slashed agricultural output of the CEE's even further.

The drought affected several grain producing countries in northern Europe, including the Baltic states of the FSU. But overall, grain output rebounded significantly from 1991's reduced level. USDA's November projection calls for a 20-percent increase in FSU grain output, at just under 183 million tons.

With higher grain output, total 1992/93 FSU-15 grain imports are estimated down from last year. As of November 10, USDA projects FSU grain imports for 1992/93 (July-June) of 31 million tons, down from almost 42 million. The decline in grain imports also reflects increased state procurement and difficulties with debt servicing primarily because of hard currency earnings constraints.

The U.S. economy continued to be sluggish in the third quarter although third-quarter real GDP grew between 2.5 and 3 percent at an annual rate, led by a nearly 3.5-percent rise in consumer spending. The rise in consumer spending was a welcome sign that private spending might be reviving, but other indicators suggested that the momentum might not be sustained. Business investment spending was essentially unchanged in the third quarter, reflecting a general unwillingness to increase capital spending without a signal of strong future demand.

On the bright side for U.S. consumers and agriculture is the outlook for energy prices. The latest Department of Energy (DOE) short-term energy outlook foresees only modest increases in consumer energy prices.

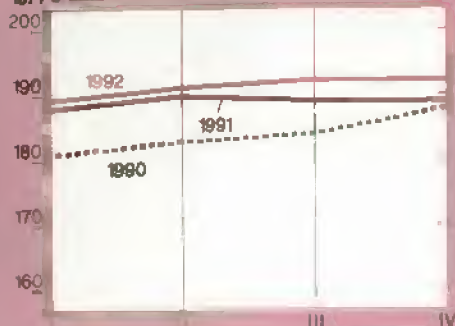


## Commodity Overview

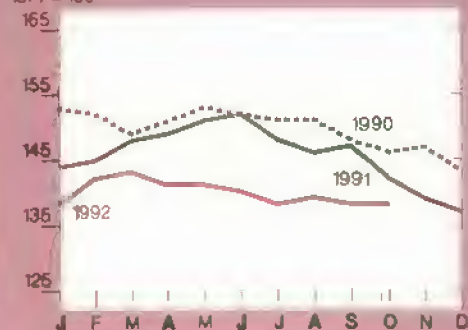
## Prime Indicators

Index of prices paid by farmers

1977 = 100

Index of prices received by farmers<sup>1</sup>

1977 = 100

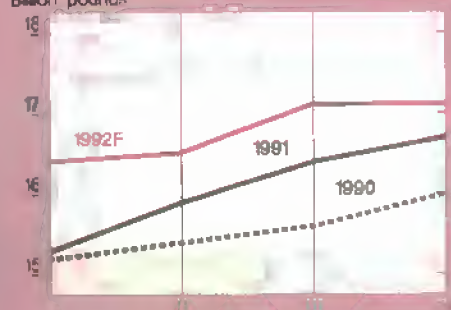


Ratio of prices received/prices paid

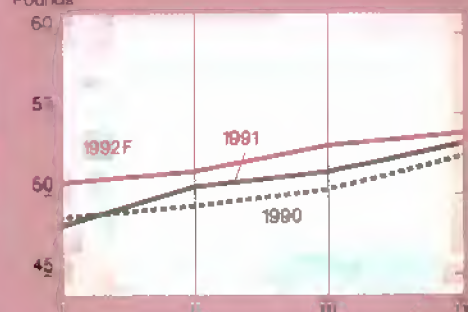
Percent

Total red meat & poultry production<sup>2</sup>

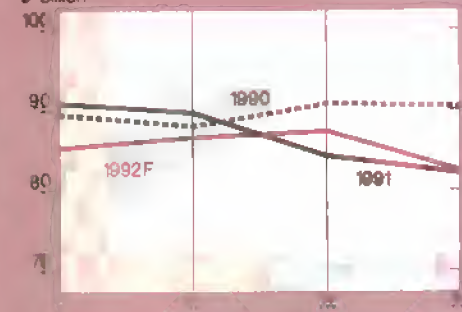
Billion pounds

Red meat & poultry consumption, per capita<sup>2,3</sup>

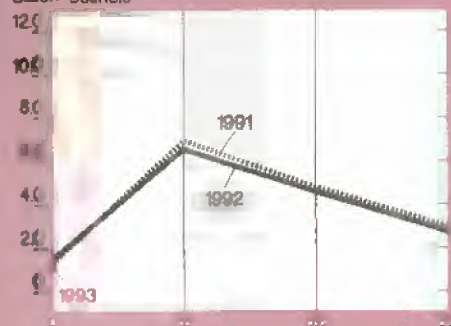
Pounds

Cash receipts from livestock & products<sup>4</sup>

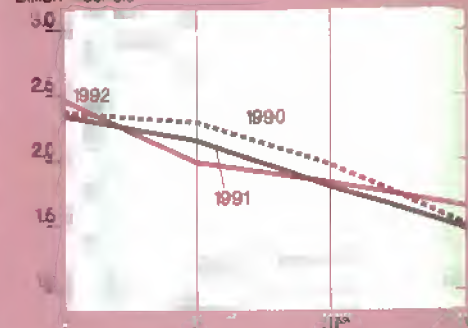
\$ billion

Corn beginning stocks<sup>5</sup>

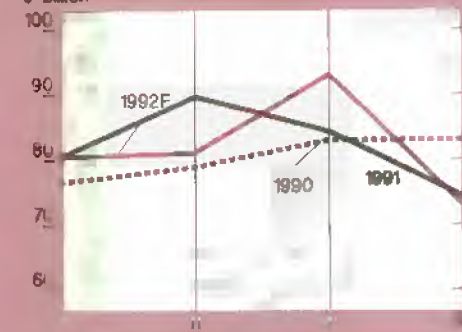
Billion bushels

Corn disappearance<sup>5</sup>

Billion bushels

Cash receipts from crops<sup>4</sup>

\$ billion

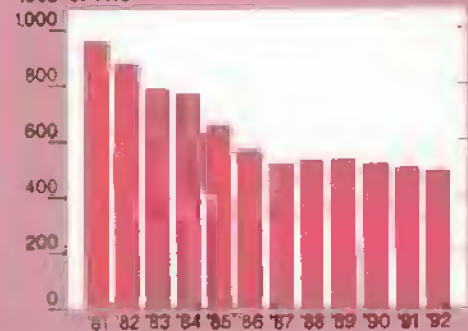
Real cash income (1987\$)<sup>6</sup>

\$ billion



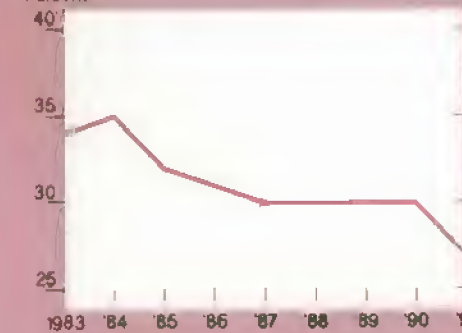
Average real value of farm real estate

1982 \$/acre



Farm value/retail food costs

Percent

<sup>1</sup>For all farm products. <sup>2</sup>Calendar quarters. Future quarters are forecasts for livestock, corn, and cash receipts.<sup>3</sup>I=Sept.-Nov.; II=Dec.-Feb.; III=Mar.-May; IV=June-Aug. Marketing years ending with year indicated.<sup>4</sup>Cash expenses plus net cash income equals gross cash income. F=forecast.<sup>5</sup>Retail weight. <sup>6</sup>Seasonally adjusted annual rate.



## Domestic Outlook— November Projections For 1992/93

*Gains in output of most major crops will not be mirrored in trade. A sharp rise in feed wheat available from Canada will limit growth in U.S. corn exports, and wheat exports are forecast down slightly due to large competing supplies. Cotton*

## Corn Use To Set Record

- With disappearance up nearly 5 percent from last year, 1992/93 corn use to set a new record. Feed and residual use up more than 6 percent, buoyed by large supplies, lower prices, and expanded livestock production. Food, seed, and industrial use and exports up, too.
- The corn crop expected record high, with forecast output up 25 percent

- Forecast yield of 129.3 bushels per acre would top the record set in 1987, by 9.5 bushels. The November forecast up 5.5 bushels from October, with record-high ear counts reported in most states. Grain weights per ear near normal. Twenty-one of 41 reporting states expected to tie or break their yield records.
- Corn harvest far behind schedule. By November 15, 59 percent of the crop harvested, well behind the 5-year average of 95 percent. The reason: many farmers waiting for

	Area		Yield	Output	Total supply	Domestic use	Exports	Ending stocks	Farm price
	Planted	Harvested							
	— Mil. acres —		Bu./acre	—	—	Mil. bu	—	—	\$/bu
Wheat									
1991/92	69.9	57.7	34.3	1,981	2,888	1,135	1,281	472	3.00
1992/93	72.3	62.4	39.4	2,459	2,981	1,183	1,275	523	3.10-3.30
Corn									
1991/92	76.0	68.6	108.6	7,474	9,015	6,331	1,584	1,100	2.37
1992/93	79.3	72.1	129.3	9,329	10,439	6,685	1,600	2,154	1.85-2.15
Sorghum									
1991/92	11.0	9.6	59.0	579	722	377	291	53	2.25
1992/93	13.5	12.3	71.2	878	931	510	300	121	1.75-2.05
Barley									
1991/92	8.9	8.4	55.2	464	624	401	95	129	2.10
1992/93	7.8	7.3	62.4	456	605	385	110	130	2.00-2.20
Oats									
1991/92	8.7	4.8	50.7	243	489	360	2	128	1.20
1992/93	9.0	4.5	65.6	295	462	360	2	100	1.25-1.35
Soybeans									
1991/92	59.2	58.0	34.2	1,987	2,319	1,356	685	278	5.60
1992/93	59.1	58.1	37.3	2,167	2,447	1,367	730	350	5.00-5.40
			Lb./acre	—	—	Mil. cwt (rough equiv.)	—	—	\$/cwt
Rice									
1991/92	2.66	2.75	5,617	154.5	184.3	90.7	66.4	27.3	7.53
1992/93	3.03	2.97	5,666	168.2	201.1	94.0	74.0	33.1	6.10-6.60
						Mt. bales	—	—	c/b
Cotton									
1991/92	14.1	13.0	652	17.6	20.0	9.6	6.7	3.7	58.30*
1992/93	13.4	11.2	694	16.2	19.9	9.7	6.0	4.3	—

Based on November 10, 1992 World Agricultural Supply and Demand Estimates; U.S. marketing years for exports.  
\*Weighted average price for August-March, not a season average.  
See table 17 for complete definition of terms.



## Commodity Overview

### Highest Corn Producing States Stated To Reach Record Yields

	Expected production	Expected yield	Record-high yield	Year of highest yield
	<i>Mt. bu</i>	<i>Bu/acre</i>	<i>Bu/acre</i>	
<b>Corn</b>				
Iowa	1,900	145.0	145.0	1992
Illinois	1,595	145.0	145.0	1992
Nebraska	1,043	132.0	132.0	1992
Indiana	844	143.0	143.0	1992
Minnesota	805	122.0	127.0	1987
U.S.*	9,329	129.3	129.3	1992
<b>Soybeans</b>				
Illinois	404	43.0	43.0	1992
Iowa	346	43.0	43.5	1987
Indiana	189	42.0	42.0	1992
Minnesota	189	35.0	39.0	1987, 1990
Missouri	153	36.0	36.0	1992
U.S.*	2,167	37.3	37.3	1992
	<i>1,000 bales</i>	<i>Lb/acre</i>	<i>Lb/acre</i>	
<b>Upland cotton</b>				
Texas	3,400	460	506	1987
California	2,700	1,303	1,303	1992
Mississippi	2,200	785	888	1991
Arkansas	1,600	800	800	1992
Louisiana	1,300	709	828	1991
U.S.	15,709	689	702	1987

\*Previous U.S. record for corn was 119.8 set in 1987, and for soybeans 34.2 set in 1991.

the high-moisture crop to "dry down," while persistent rainfall—prolonging drying time—has caused further delays.

- Corn ending stocks to nearly double from the carryin level, and the stocks-to-use ratio—at 26 percent—at the highest level since 1988. Prices expected in the \$1.85-\$2.15 range, below last year's \$2.37.

### Record Yields for All Feed Grains

- Forecast sorghum yield of 71.2 bushels per acre to surpass previous mark of 69.4 set in 1987. Ten of 18 reporting states tie or break their records.
- Forecast barley yield of 62.4 bushels to shatter record set 10 years ago in 1982, by more than 5 bushels per acre. And the expected oat yield, at 65.6 bushels per acre, is 2 bushels above the record set in 1985.

Twelve barley states and 14 oat states projected to realize record yields.

- The last time all four feed grains registered record yields was in 1965.

### Soybean Crush Highest on Record

- Total soybean use in 1992/93 to rise nearly 3 percent from last year, and expected just 2 million bushels short of the 1982 record. Crush expected record high as domestic meal demand remains strong. Exports also up, due in part to reduced rapeseed production in the EC and Canada.
- Strong demand helping offset the pressure of this year's large crop. Production up more than 9 percent from last year, and the highest since 1982. This would be the third-largest crop on record.

- Forecast yield of 37.3 bushels per acre up 1 bushel from October's forecast and up 3.1 bushels from the 1991 record. Record pod count and slightly above-average pod weights being reported.
- Soybean development rebounded in the Corn Belt following the cool summer. As of November 15, harvest 91 percent complete nationwide, slightly behind the 5-year average of 94 percent.
- Ending stocks in 1992/93 projected 26 percent above carryin, and the stocks-to-use ratio would be the highest since 1990/91. Season-average price expected in the \$5-\$5.40 range, down from 1991/92's \$5.60.

### Total Wheat Use Up Slightly

- Total wheat use expected up about 2 percent in 1992/93. Domestic use to be third highest on record, the result of higher domestic flour use and estimated first-quarter feed and residual use higher than expected. But exports down slightly due to large competing supplies.
- Output in 1992 up 24 percent from 1991's reduced level, and supplies up 3 percent. Rise in output due to a near-record U.S. average yield—just one-tenth of a bushel short of the 1990 record—and an 8-percent rise in harvested area.
- Ending stocks to exceed the carryin level by about 50 million bushels. Season-average price in the \$3.10-\$3.30 range, up from 1991/92's \$3.
- Much attention focused on 1993 crop prospects. As of November 15, 86 percent of the winter wheat crop emerged, 3 points behind average. Soil moisture in the Great Plains is generally better than a year ago, but parts of the Pacific Northwest and Southern Plains are dry.

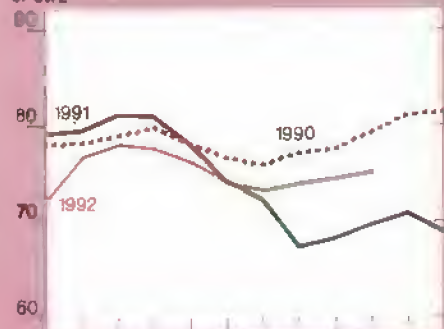


## Commodity Market Prices

## Commodity Overview

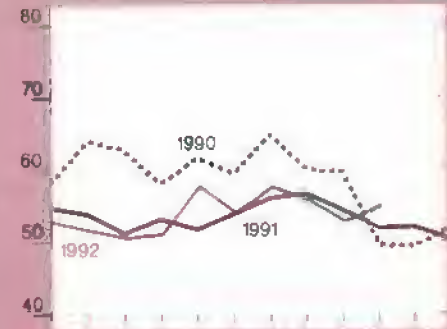
Choice steers, Nebraska

\$/cwt

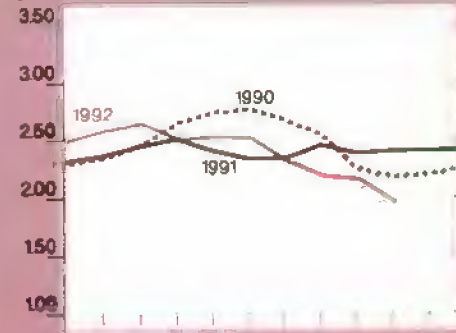


Broilers, 12-city average

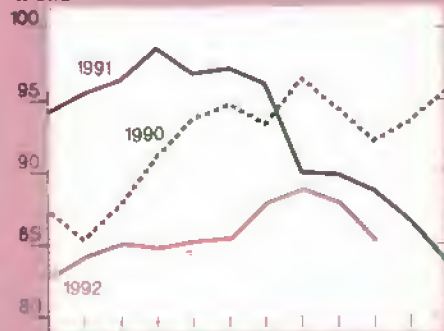
Cents/lb

Corn, Central Illinois<sup>1</sup>

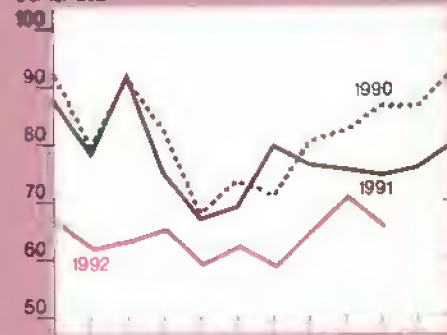
\$/bu

Medium steers, Oklahoma City<sup>2</sup>

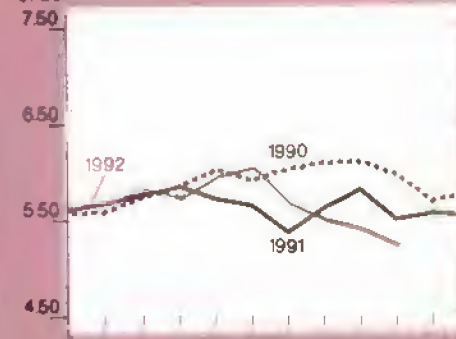
\$/cwt

Eggs, New York<sup>3</sup>

Cents/doz

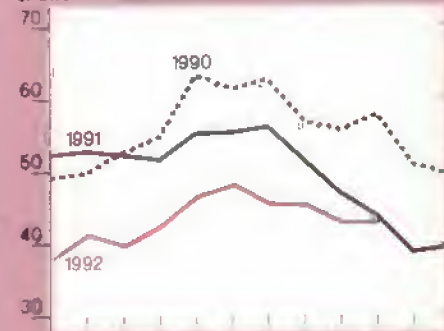
Soybeans, Central Illinois<sup>4</sup>

\$/bu

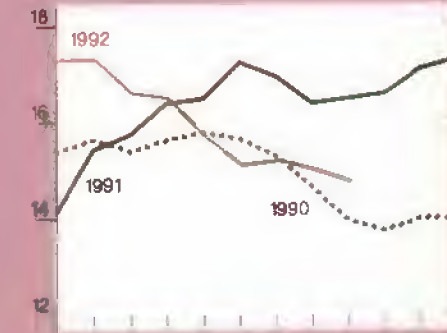


Barrows and gilts, 6 markets, Omaha

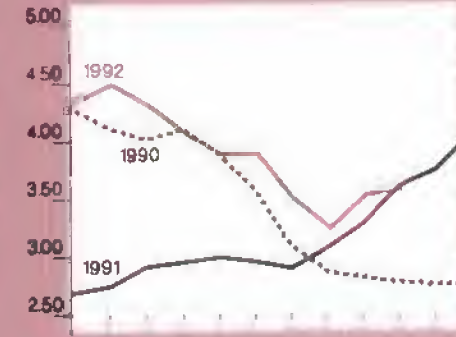
\$/cwt

Milled rice, SW Louisiana<sup>5</sup>

\$/cwt

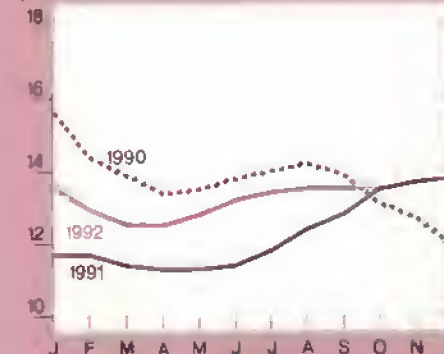
Wheat, Kansas City<sup>6</sup>

\$/bu



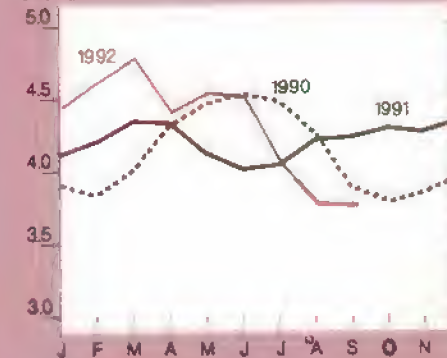
All milk

\$/cwt



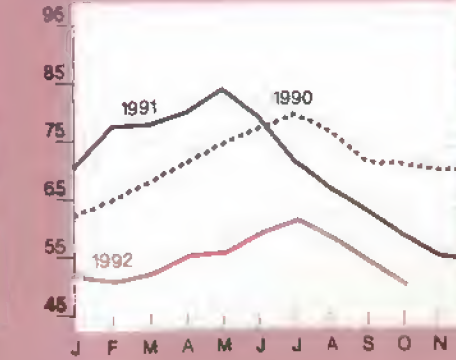
Sorghum, Kansas City

\$/cwt



Cotton, average spot market

Cents/lb

<sup>1</sup>No. 2 yellow.<sup>2</sup>600-700 lbs medium no. 2.<sup>3</sup>Grade A large.<sup>4</sup>No. 1 yellow.<sup>5</sup>US No. 2, long-grain.<sup>6</sup>No. 1 HRW.



## Commodity Overview

### Rice Use Second Highest on Record

- Total rice use in 1992/93 expected to miss the record set in 1988/89 by just 400,000 cwt. Domestic use to set record, while exports forecast to be the highest since 1989.
- Supplies also expected up. The 1992 rice crop is expected to be the second highest on record, bringing supplies more than 9 percent above last year.
- Large supplies expected to overshadow the increase in use. Ending stocks projected 5.8 million cwt above carryin, and the season-average price expected in the \$6.10-\$6.60 range would be well below 1991/92's estimated \$7.53.

### ... But Cotton Use Projected Down

- Total cotton use in 1992/93 projected down 3 percent from last year. Although domestic consumption up 1 percent with strong mill use, exports to fall nearly 10 percent due to strong foreign competition.
- With lower acreage, production expected down 8 percent from last year's near-record level. Cool, damp weather has been a problem in some areas, contributing to a projected harvested-to-planted ratio of 83 percent, down from last year's 92 percent.
- Use expected down more than supply, and ending stocks expected 16 percent above carryin, at 4.3 million bales.
- The U.S. average price received by farmers for upland cotton through mid-October of the 1992 marketing year at 52.9 cents per pound, well below the average price in the first three months of 1991/92—64.7 cents.

[Joy Harwood (202) 219-0840]

### World Market: Outlook for 1992/93

#### Global Wheat Output Up

- Increased U.S. wheat output and a bigger FSU crop to boost world output to 553.1 million tons and offset declines in Canada, Argentina, the EC, and Eastern Europe. FSU harvest reports indicate a larger-than-expected crop of 90 million metric tons, with the republic of Kazakhstan reporting a record spring wheat crop.
- But lower global wheat consumption—particularly in the former Soviet Union and Eastern Europe, where livestock liquidation has

dampened demand for feed wheat—likely to generate a 7-percent drop in world trade to 101 million tons.

- High carryin stocks in the EC and Canada will help maintain their market shares, despite lower production. Faced with strong export competition, U.S. exports projected down to 34.5 million tons, accounting for 34 percent of world trade.

### U.S. Drives Gains In Coarse Grain Output

- While world output, estimated at 837 million tons, will exceed the previous high of 1985/86, foreign output is down—overall global gain driven largely by higher U.S. corn output.

#### Gains In World Grain and Oilseed Production Boost Stocks in 1992

	Year <sup>1</sup>	Production	Exports <sup>2</sup>	Consumption <sup>3</sup>	Carryover
<i>Mil. tons</i>					
Wheat	1991/92	542.3	108.2	554.6	131.5
	1992/93	553.1	101.2	549.3	135.3
Coarse grains	1991/92	800.8	94.3	806.2	132.2
	1992/93	836.8	88.7	818.7	150.3
Corn	1991/92	485.1	62.5	486.0	79.6
	1992/93	520.6	58.1	499.9	100.3
Rice	1991/92	347.3	14.6	351.4	56.5
	1992/93	349.5	13.8	353.4	53.0
Oilseeds	1991/92	223.0	36.7	184.7	21.2
	1992/93	224.2	36.7	184.6	22.4
Soybeans	1991/92	106.1	28.1	91.9	18.1
	1992/93	112.2	29.5	93.5	19.9
Soybean meal	1991/92	72.8	28.3	72.6	2.8
	1992/93	74.1	27.2	73.5	2.9
Soybean oil	1991/92	16.7	4.2	15.9	2.1
	1992/93	17.0	4.2	16.9	2.0
<i>Mil. bales</i>					
Cotton	1991/92	95.9	22.5	85.0	40.0
	1992/93	87.3	22.7	86.7	40.2

<sup>1</sup> Marketing years are: wheat, July-June; coarse grains and corn, October-September; oilseeds, soybeans, meal, and oil, local marketing years except Brazil and Argentina adjusted to October-September; cotton, August-July. <sup>2</sup> Rice trade is for the second calendar year. <sup>3</sup> Crush only for soybeans and oilseeds.

Source: Foreign Agricultural Service, USDA.



- Gains in production are not matched in trade. A sharp rise in the export availability of feed wheat from Canada expected to dampen the outlook for U.S. corn exports, estimated to rise only slightly to 41.5 million tons.
- Mounting carryover stocks, primarily in the U.S. as production exceeds consumption, to depress prices.
- New EEP initiatives for barley, with 12 countries targeted for 2.54 million tons, support U.S. barley export prospects. U.S. export market share forecast to move up marginally to 12 percent, as reduced foreign supplies constrain exports.

### Foreign Cotton Production Decreases

- ... as China's production drops precipitously to 21 million bales. Insect damage and drought in Shandong, Henan, and Hebei provinces—the major growing areas—adversely affected yields. China's 5-million-bale drop will lower foreign output to 87.3 million, a 9-percent decline from last year's record.
- U.S. export market share still down despite lower foreign production. Growth continues to be limited by weak world demand and continued keen foreign competition.
- World cotton stocks continue burdensome, despite declines in both China's and FSU's production and stocks, as global output maintains an edge over record consumption.

### Strong Meal Demand Raises Export Prospects

- ... despite strong competition from South America, where favorable planting conditions boost the outlook for soybean production. Favorable credit policies in Brazil and high returns from last year's harvest boost soybean production to 19.8 million, but not enough to offset sharp downward revisions in China's estimated oilseed crop.

## Asia's Soy Imports Buoy World Markets

Growth in soybean product imports by East Asian countries has buoyed world demand for soybean products over a 6-year period, 1986 to 1992. U.S. exports of soybean products to this region grew 9 percent during this period, despite a 10-percent decline in total U.S. soybean product trade.

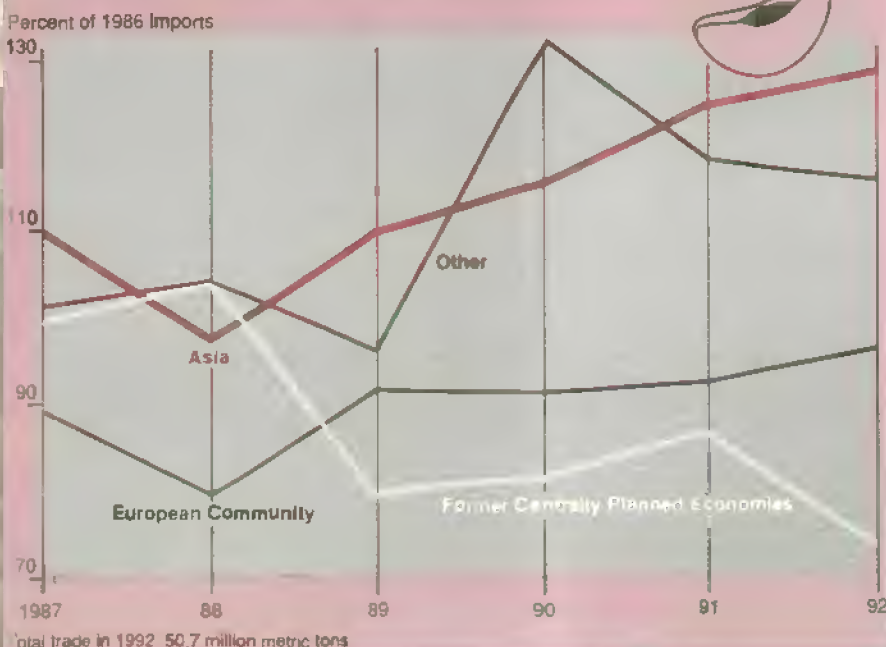
Higher incomes and growing livestock industries in East and Southeast Asia are stimulating world demand for soybean products. Since 1986, soybean meal consumption in Japan, Korea, Taiwan, the Philippines, Indonesia, Malaysia, Singapore, and Thailand has increased at a rate of 6 percent. This compares with relatively slow growth of 1.6 percent in world consumption.

While Southeast Asia has exhibited the strongest growth in consumption, the East Asian countries of Japan, Taiwan, and South Korea continue to lead the region in imports of both beans and meal, with combined imports in 1992 forecast at 8.1 million tons (soybean meal equivalent). Total Asian imports in 1992 are forecast to account for about 22 percent of world trade in soybeans and meal, compared with 17 percent in 1986.

The growth in U.S. exports to Asia has not offset declines in U.S. sales to the Soviet Union and Central and Eastern Europe, where economic turmoil and consequent liquidation of livestock herds have dampened import demand for protein meals. Nor have the gains offset the 43-percent decline since 1986 in soybeans and soybean meal to the EC, where domestic support programs have encouraged production of oilseeds, limiting import demand.

The outlook for U.S. soybean exports in 1992/93, however, is favorable. Strong demand from Asia for U.S. soybeans and soybean meal is projected to continue, particularly with competition from China diminished by its short soybean crop. Asian demand is complemented by booming soybean exports to the EC, where a relatively low dollar at the beginning of the marketing year, combined with the threat of a U.S.-EC trade war and low stocks in South America, stimulated EC imports of soybeans at the onset of the marketing year.  
[Nancy Morgan (202) 219-0825]

Asia Is Dominant Growth Market for Soybean Products



## Commodity Overview

- Strong demand for protein meals in several Asian countries, along with a further tightening of supplies of other oilseeds, to stimulate demand for soybeans. Prospects are favorable for increased U.S. share of total oilseed product exports, particularly with short supplies in South America until harvest in early 1993.
- Global and U.S. soybean oil use and trade prospects substantially improved by recent events. A \$40-million P.L.480 vegetable oil allocation for Pakistan, combined with setting aside for 1 year the Pressler amendment—which forbade food aid sales to that country—will reopen a market that 3 years ago accounted for half of U.S. soybean oil export sales. And a significant drop in Chinese oilseed production could stimulate more demand for imported vegetable oils.

### Near-Record World Rice Crop

- ... with increases in major consuming countries such as China, India, and Indonesia accounting for most of the increase.
- Abundant supplies dampen outlook for global trade, with increasing competition for a declining import market expected to drive world rice prices lower in 1993. Large supplies and falling U.S. prices should help maintain U.S. export market share.

[Nancy Morgan (202) 219-0825]

**For further information, contact:** Sara Schwartz, world wheat; Randy Schnepf, world rice; Edward Allen, domestic wheat; Janet Livezey, domestic rice; Pete Riley, world feed grains; Tom Tice and Jim Cole, domestic feed grains; Nancy Morgan and Jaime Castaneda, world oilseeds; Scott Sanford and Roger Hoskin, domestic oilseeds; Carol Whitton, world cotton; Bob Skinner and Les Meyer, domestic cotton. World information (202) 219-0920; domestic (202) 219-0840. **AO**

## Livestock, Dairy & Poultry Overview

*Exports of turkeys, broilers, pork, and beef continue strong. For all of 1992, turkey exports are forecast around 50 percent above last year, broiler exports about 11 percent higher, and pork exports at a post-World War II high. Beef and veal exports could be 13-14 percent above a year ago.*

*Lower feed costs are leading to improved returns to producers. Corn prices have hovered around \$2 per bushel, lowering production costs and encouraging modest expansion in hog, broiler, and turkey output. Beef production is forecast up 1 percent in 1993.*

*The outlook for dairy product sales remains mixed. Increase in cheese sales in summer held commercial use near the previous year's, but sales of fluid milk dropped 1 percent. [For full update on market conditions, see tables 10-16.]*

### Record Turkey Stocks Continue

- Fourth-quarter output expected 1-2 percent above last year following third-quarter growth of about 5 percent. Total production for 1992 estimated 3-4 percent above last year.
- Stocks reached 740 million pounds on October 1, about 11 percent above record levels a year earlier. Record consumption is necessary to slim down turkey stocks to around 300 million pounds by yearend.
- Booming exports, estimated to exceed 3.5 percent of output in the fourth quarter, to boost turkey sales.
- Wholesale prices firmed seasonally early in the fourth quarter and moved above the very low levels of last year. For the quarter, Eastern region hens are estimated to average

around 60-64 cents per pound, compared with 62.9 cents a year ago. Returns, aided by lower feed costs, are estimated to average near breakeven and slightly better than last year.

- Moderate production increases of about 2 percent expected in 1993. Some improvement in returns in second-half 1992 together with expected lower feed costs may provide enough encouragement for expansion. Slower pork expansion would boost turkey sales and prices in second-half 1993.

### Strong Exports Boost Broiler Market

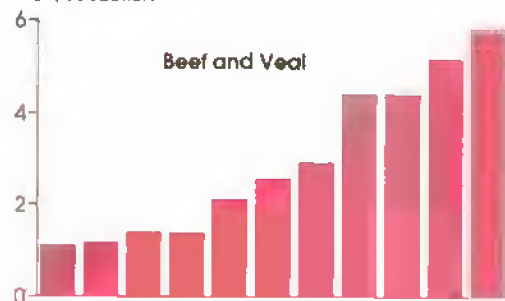
- Forecast for 1992 broiler exports raised to 1.4 billion pounds, 11 percent over last year, and about 7 percent of production.
- Strong exports worldwide received a push from a \$30-million export credit guarantee and \$8 million in food aid for broilers to the Russian Republic. Result will likely be delivery of about 88 million pounds of chicken quarters to Russia. Exports to the former Soviet Union (FSU) expected substantially lower than the 183 million pounds of last year.
- Leading export markets for U.S. broilers in 1992 are Hong Kong (about 300 million pounds), Japan (about 285 million), Mexico (about 160 million), and Canada (about 100 million pounds). Fastest growing markets are Canada and Hong Kong, 32 and 36 percent above last year. Exports are driven mainly by large supplies of chicken leg parts at low prices.
- Broiler prices down seasonally as consumers switch to holiday-associated meats such as turkey and ham. Fourth-quarter wholesale broiler prices, aided by strong exports, are estimated around 52 cents per pound, compared with 50.5 last year. Retail prices have recently run about the same as last year.



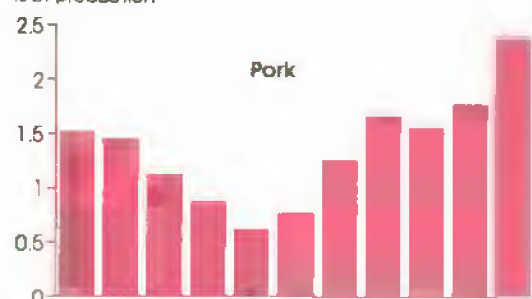
## Commodity Overview

## U.S. Exports of Beef, Pork, and Poultry Are on the Rise

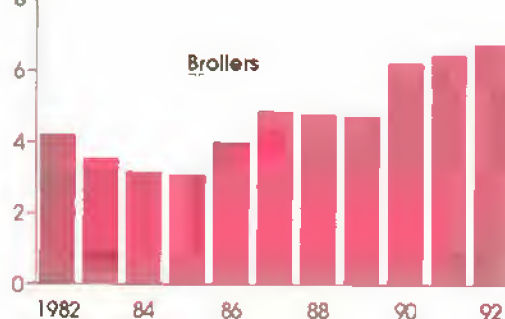
% of production



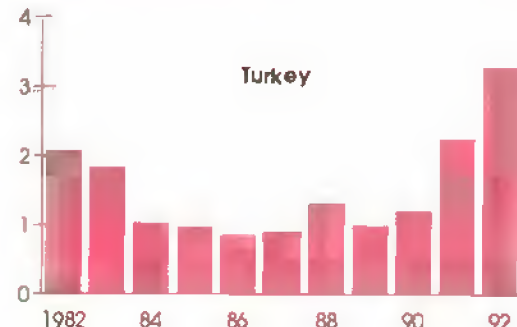
% of production



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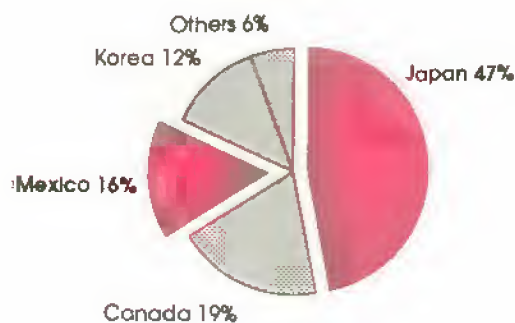
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## Mexico and Japan Are Major Customers

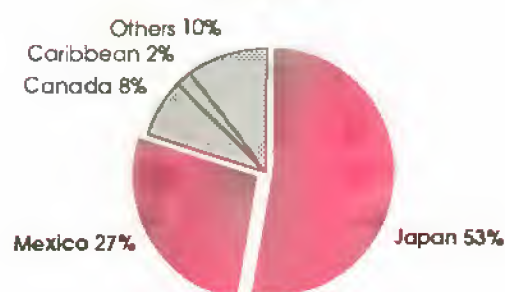
## Beef and Veal

986 mil. lbs.



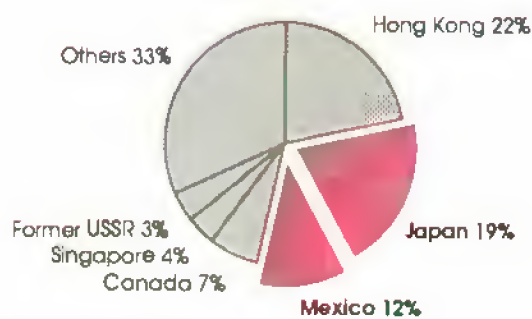
## Pork

291 mil. lbs.



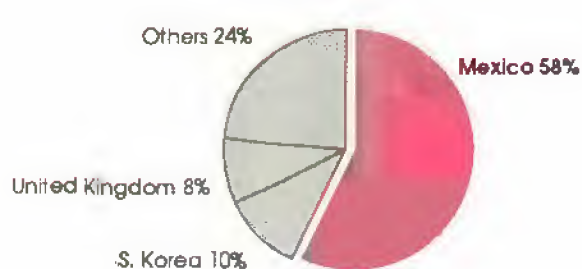
## Broilers

1,045 mil. lbs.



## Turkey

114 mil. lbs.



January-September 1992.

## Commodity Overview

- Net returns to broiler producers improved in the third quarter to about the same as last year. During the fourth quarter, lower feed costs are expected to improve returns. For 1992, returns are expected to average about the same as last year.
- Broiler production in 1992 is estimated up about 6 percent, following a 6.3-percent increase in 1991. Slower growth, about 3-4 percent, is expected in 1993.
- Exports, supported by competitive U.S. prices, are expected to reach another record high in 1993, continuing the string of increases that began in 1985.

### Egg Production High

- Total egg production—both table and hatching eggs—is up 2 percent to about 5.9 billion dozen this year. Table-egg production, more than 5 billion dozen, rose 2 percent, a third consecutive annual increase. Output of hatching eggs, about 823 million dozen, increased 2.2 percent.
- Egg stocks, holding steady at about 16 million dozen-equivalent since early in the year, are 22.4 percent above last year and at highest levels since 1988.
- Table-egg flock, 237 million hens, continues to grow. On October 1 it was 2.3 percent above a year earlier.
- Wholesale New York prices for large eggs, only 63.5 cents per dozen in mid-October, began rising seasonally in the second half of October. Fourth-quarter prices should average about 70 cents, highest for the year but below last year.
- Retail egg prices in the quarter estimated at 89 cents, the lowest since 1988 and down from 98 cents last year.
- Producers' returns in the fourth quarter, boosted by higher egg prices and lower feed costs, are estimated well above breakeven but below those of fourth-quarter 1991. Average returns for the year will be well below those of 1989-91.
- For 1993, fractionally lower egg production is expected, at around 5.8 billion dozen. Table-egg output is expected to decline around a half percent to 1 percent from 1992.

### Pork Output & Returns Up

- Weekly slaughter rates in October averaged 7 percent above a year ago. Hog prices averaged higher than expected at \$43 per cwt.
- Annual increase in the slaughter rate is expected to moderate in the coming months, keeping hog prices in the low \$40's until spring. Prices expected in low- to mid-\$40's during second-quarter 1993.
- Corn prices around \$2 per bushel will lower the cash cost of producing hogs into the mid-\$30's per cwt. Returns expected to continue above cash costs, encouraging producers to keep expanding at a modest rate. Commercial pork production, which is at record high, should continue to increase in 1994.
- Record pork production along with plentiful competing meat supplies should keep retail pork prices around \$2 per pound over the coming months. Prices for the first 10 months of 1992 averaged \$1.98, down 8 percent from a year ago. Nearly all the decline was in farm value, as the farm-retail spread was nearly as wide as a year ago.
- Record production and low prices helped boost pork exports to a post-World War II high. U.S. net imports in 1993 likely to be below 200 million pounds for the first time since 1977.

### Beef Imports Restrained

- Beef and veal imports through September up 4 percent over last year. Imports from Australia and New Zealand were up 2 percent, and from Canada up 56 percent.
- Imports from Australia and New Zealand will drop in the fourth quarter because of the Voluntary Restraint Agreement signed by these countries. Shipments above the limit will be placed in bonded warehouses for release in 1993.
- Beef and veal exports up 14.3 percent through September 1992. Exports to Japan, South Korea, and Mexico up 18, 22, and 25 percent, while exports to Canada were unchanged.
- Mexico announced new import tariffs for cattle and beef on November 11. From a previous rate of zero, the new tariff rates are 15 percent for imported slaughter cattle; and for bovine carcasses and half-carcasses and bone-in cuts or boneless beef—20 percent for fresh and chilled, 25 percent for frozen.
- Feedlot placements increased sharply late in the third quarter and through October as grazing conditions declined seasonally. Higher placements were due to poor wheat grazing prospects and lower grain prices.
- Cattle-on-feed inventories moved above a year earlier on October 1 for the first time since July 1, 1991.
- Fed cattle prices nearly \$5 per cwt higher than a year ago as feedlots remained current in October.
- Retail prices for Choice beef in the third quarter averaged only slightly below a year ago, holding up well against the large supply of competing meats.



## Commodity Overview

- Beef production forecast to increase 1 percent in 1993 because of increased fed beef and cow slaughter. Slaughter weights to average about the same as in 1992.

### Dairy Product Demand To Remain Mixed

- Economic recovery not likely to be sufficiently strong and steady to generate sustained, brisk demand for dairy products.
- Strong summer cheese demand prevented a price collapse following a surge in milk production. A 5-percent increase in cheese sales held commercial use of all dairy products near the previous year, even though wholesale prices were up 4 percent.
- Fluid milk sales fell 1 percent in summer, continuing weak 1992 demand. Cool summer weather kept the lid on ice cream sales.
- Commercial use of butter continued a lackluster pattern as summer sales fell sharply after a spring jump. Retail sales were up, but industrial and away-from-home markets have not responded to lower prices.
- Nonfat dry milk disappearance fell from a year earlier and from earlier in 1992. Users probably reduced stocks built earlier in the year.
- Sales of cheese and butter expected to rise in 1993 because of favorable retail prices. Further economic recovery probably will help, but supporting only moderate growth. Nonfat dry milk use may slip as food processors continue to be tempted to reformulate products.

**For further information, contact:** Richard Stillman and Agnes Perez, coordinators; Steve Reed, cattle; Leland Southard, hogs; Lee Christensen and Larry Witucki, poultry; Jim Miller and Sara Short, dairy. All are at (202) 219-1285. **AO**

## Specialty Crops Overview

*The most recent estimates for fruit output point to larger U.S. apple, pear, and citrus crops for 1992/93. Prices are expected to dip because of the abundant crops. By contrast, a slightly smaller fall potato crop, and a dry bean crop likely to be a third less than in 1991, are expected to boost prices for those crops above last year's levels.*

*U.S. grape production is also expected up, with 5 percent more table grapes than 1991. In spite of large grape imports from Chile, U.S. production has*

*risen substantially to meet a growing consumer demand for grapes. Increased domestic production of seedless varieties, higher quality, lower relative prices, and extended seasonal availability are all factors contributing to the steady climb in consumption, which has tripled from 1970 to 1991.*

### Apple & Pear Prices Lower

- Prices of apples and pears expected lower than last year because of more fruit in storage and weaker export demand. U.S. apple crop estimated 4 percent higher than in 1991—9 percent higher for western states, the largest shippers of fresh apples out of storage during the winter.

#### Citrus and Apple Supplies Larger Than in 1991

	Forecast change from				
	1990/91	1991/92	1992/93	1990/91	1991/92
Citrus production	— — 1,000 short tons — —			Percent	
Oranges					
Arizona	65	89	71	9	-20
California	961	2,480	2,550	165	3
Florida	6,817	6,291	8,370	23	33
Texas	-1	1	19	-1	1,900
U.S.	7,843	8,861	11,010	40	24
Grapefruit					
Florida	1,916	1,803	2,296	20	27
Arizona	77	89	70	-9	-21
California	262	329	-2	-2	-2
Texas	-1	3	48	-1	1,600
U.S.	2,255	2,224	-2	-2	-2
Lemons					
Arizona	156	194	217	39	12
California	563	574	646	15	13
U.S.	719	768	863	20	12
Noncitrus stocks, November 1	— — Million lbs. — —				
Apples (fresh market) <sup>3</sup>	3,689	3,942	4,511	22	14
Pears					
Bartlett	43	44	22	-49	-50
Other varieties	407	359	358	-12	0
Total pears	450	403	380	-16	-6
Grapes	198	181	110	-44	-39

<sup>1</sup> No commercial production reported due to freeze damage in December 1989. <sup>2</sup> First forecast for California grapefruit "other areas" will be as of April 1, 1992. <sup>3</sup> International Apple Institute estimate.

## Commodity Overview

### Fresh Produce: The Global Factor

Markets for fresh fruit and vegetables are increasingly global as improved refrigeration and transportation have made it possible to expand supply sources. This increase in trade has expanded the variety and seasonal availability of fresh fruit and vegetables to U.S. consumers. In 1990, U.S. imports from all sources accounted for 12.3 percent of total U.S. fresh fruit consumption, excluding bananas (35.3 percent if bananas are included), and 8.4 percent of total fresh vegetable consumption.

As trade barriers are reduced, trade in fresh fruit and vegetables likely will continue to rise. The potential of Mexico as a supplier under a North American Free Trade Agreement would also be a factor in the continuing globalization of fresh fruit and vegetable markets. In 1990, Mexico supplied about 2.5 percent of U.S. fresh fruit consumption, excluding bananas (3.3 percent including bananas), and 5.4 percent of fresh vegetables consumed in the U.S.

*(Boyd M. Buxton and Dennis A. Shields (202) 219-0884)*

### Nearly All Bananas and Mangoes Consumed in the U.S. Are Imported

Fresh fruits	U.S. consumption Mil. lbs.	Share of consumption	
		Imported	Imported from Mexico
		Percent	
<b>Citrus</b>			
Oranges	3,344.9	0.8	0.2
Grapefruit	1,118.5	0.9	0.0
Tangerines	237.5	15.7	11.5
Lemons	655.4	3.5	0.0
Limes	184.9	47.1	44.8
Tangelos	100.0	0.0	0.0
Total citrus	5,641.2	3.3	2.1
<b>Noncitrus</b>			
Apples	4,978.7	4.8	0.0
Grapes	1,961.7	36.7	2.9
Pears	814.5	11.9	0.0
Apricots	41.4	5.3	0.0
Avocados	270.7	10.9	0.0
Bananas	6,089.0	99.8	5.5
Cherries, sweet	94.9	3.3	0.0
Cherries, tart	3.8	15.8	0.0
Cranberries	27.8	0.0	0.0
Figs	3.4	5.9	0.0
Kiwifruit	124.4	59.2	0.0
Mangoes (1989)	104.3	95.3	82.0
Nectarines	376.2	0.0	0.0
Peaches	933.2	12.2	0.0
Pineapple	520.4	48.3	1.7
Plums & Prunes	384.2	13.5	0.0
Strawberries	813.7	4.0	3.4
Papayas	45.1	25.5	14.4
Noncitrus fruit	17,586.9	44.4	3.0
Excluding bananas	11,407.4	15.0	1.6
<b>All fruit</b>	<b>23,123.8</b>	<b>35.3</b>	<b>3.3</b>
Excluding bananas	17,034.8	12.3	2.5

\*Data for 1990

- Pear production estimated up 4 percent from 1991. Production of other-than-Bartlett pears (fall and winter pears) estimated 3 percent higher.
- The International Apple Institute reports 14 percent more fresh market apples in storage on November 1 than a year earlier, while USDA estimates pear stocks 6 percent lower. Bartlett stocks were down while supplies of fall and winter varieties were unchanged.

- A good apple crop in Europe has reduced exports to the EC from the 1991/92 level. But growth in sales to Mexico, Venezuela, other Central and South American countries, and expanding markets in Southeast Asia may offset the decline in exports to Europe.
- Total U.S. grape production estimated 11 percent higher than in 1991. Table-type grape output 5 percent higher. USDA estimated November 1 storage stocks at 110 million pounds, 39 percent lower

than a year earlier. Storage grapes extend the U.S. marketing season until Southern Hemisphere imports become available. Winter availability has contributed to increased U.S. per capita consumption of fresh grapes.

### Citrus Fruit Supplies Plentiful

- Production up in 1992/93 for oranges, grapefruit, and lemons. USDA forecasts U.S. all-orange production 24 percent higher than in 1991/92.



## Commodity Overview

## Imports Contribute Over a Third of Squash, Cucumbers and Eggplant

Fresh vegetables <sup>1</sup>	U.S. consumption <sup>2</sup>	Share of consumption	
		Imported	Imported from Mexico
	Mil. lbs.	— — Percent	— —
Asparagus	147.9	29.6	22.0
Broccoli	842.4	2.5	2.1
Cantaloupe	2,278.1	23.3	14.2
Carrots	2,003.9	6.1	1.6
Cabbage	2,177.7	4.1	1.8
Celery	1,799.5	2.3	1.7
Cauliflower	556.0	4.0	3.3
Cucumbers	1,169.2	33.7	31.4
Dry beans	1,507.0	3.7	0.0
Eggplant	99.9	35.9	35.8
Garlic	360.0	15.2	6.5
Green peas	487.4	4.1	2.2
Honeydew	515.8	22.3	12.6
Lettuce	6,940.4	0.2	0.2
Mushrooms	496.8	0.7	0.0
Onions	4,842.8	8.2	6.9
Peppers	1,069.3	20.6	18.8
Potatoes	11,372.2	6.0	0.0
Snap beans	267.3	11.2	10.9
Sweet corn	1,615.1	0.9	0.9
Sweet potato	1,240.8	4.8	0.0
Watermelon	3,534.3	6.5	6.2
Tomatoes	3,873.7	20.5	20.1
Squash	339.8	50.9	48.4
Total	49,337.3	8.4	5.4

<sup>1</sup> May include some processing. <sup>2</sup> Data for 1990.

## Potato Prices To Strengthen

- Behind the price rise is a 2-percent-smaller fall potato crop. Fall acreage was lower than in 1991, but yields were record high. The fall crop—estimated at 364 million cwt—brings U.S. production for the season to 411 million cwt.
- Production for the western states was 5 percent lower than in 1991 (down 13 percent in Washington and 1 percent in Idaho). Central states' production also was off from the year before (down 8 percent in North Dakota, 10 percent in Minnesota, but up 3 percent in Wisconsin).
- The lowest prices since 1987 for 1991 potatoes cut U.S. acreage for fall harvest by 5 percent. Harvested area off 4 percent in Idaho, and 11 percent in Washington. Fall potatoes typically account for about 88 percent of total output.
- Estimated yields averaged 3 percent more than in 1991 when growers in several larger states achieved above-average output. Nine states set or tied record yields, including Idaho, Michigan, North Dakota, and New York.
- Season-average price likely in the range of \$5-\$6 a cwt. USDA's first estimate of the 1992 season-average price becomes available in January 1993. Size of the fall crop is a major determinant of season-average price. The grower price (for all sales) for the 418-million-cwt 1991 crop averaged \$4.96 per cwt.

- In Florida, which accounts for about three-quarters of U.S. production, orange output expected 33 percent higher. Nine out of 10 oranges in Florida are used for processing.
- Orange production in California, where fresh sales are the primary use, is forecast 3 percent higher than in 1991/92. Arizona's output forecast 20 percent lower than last year. Arizona accounts for less than 1 percent of U.S. crop.
- USDA forecasts Florida grapefruit production 27 percent higher than 1991/92. Florida accounts for 80 percent or more of U.S. grapefruit output. Texas expected to produce a commercial volume this season, the first since a freeze in December 1989 destroyed nearly all trees.
- Lemon production in the California/Arizona region forecast 12 percent higher than in 1991/92. California's lemon production is recovering from tree damage caused by the December 1990 freeze.

## Commodity Overview

## Winter Availability Boosts U.S. Grape Consumption

When Chile began exporting fresh-market grapes to the U.S. in the 1970's, some U.S. growers feared imports would reduce consumers' interest in grapes during California's peak shipping season from May through September. However, larger imports from December to May actually coincided with a substantial rise in total fresh grape consumption—both imported and U.S.-grown.

Increased domestic production of seedless grapes, higher quality, lower relative prices, and extended seasonal availability have led to strong and steady growth in consumption of fresh grapes. Per capita consumption of fresh grapes, which tripled from 1970 to 1991, grew faster than other traditional fresh fruits.

Increased plantings of seedless grapes have boosted U.S. production. Acreage of early-season Perlettes, marketed in May, doubled in the last 20 years. Acreage of the popular Thompson seedless, marketed between June and November, rose about 1 percent each year on average in the 1980's. Development of the Flame and Ruby seedless varieties has boosted production since 1970.

Better postharvest handling has improved the quality of grapes reaching consumers. For example, growers have recognized the importance of removing field heat immediately after picking, thus preserving quality and extending shelf life. Growers now pick grapes at the optimal time for peak ripeness and pay more attention to trimming the fruit bunches to enhance quality.

Lower prices of fresh grapes relative to other fresh fruit made grapes a more attractive purchase for the consumer. Although the U.S. average retail price for fresh grapes rose from \$1.06 per pound in 1980 to \$1.40 in 1991, prices adjusted for inflation declined about 20 percent. Inflation-adjusted prices for citrus, on the other

hand, rose about 10 percent over the same period.

Grapes have benefited from consumers' demand for convenience. Grapes, especially the seedless varieties, which have become more popular than seeded, require minimal preparation and leave little waste after consumption.

A recent study indicated that almost 60 percent of U.S. consumers surveyed in 1992 ranked seedless grapes as one of their favorite fresh fruit snacks, up from 49 percent in 1987. Consumer concerns with weight, nutrition, and health have also helped to increase grape consumption. Continued demand for convenient and healthful foods will likely boost grape consumption in the 1990's.

On the retail marketing side, grapes are typically one of the largest contributors to produce department sales, especially July through September. Also, California table grape growers support market development and provide promotional material to retailers.

Perhaps the major factor in higher per capita grape consumption was the explosion of Chilean grape imports, dramatically widening the retail marketing season to year-round availability. Chile's excellent climate for growing fruits, domestic agricultural policies, investment in irrigation projects, and a government priority to develop fruit export markets all have led to a large Chilean fresh grape export industry. Not until Chile increased grape production and began aggressively marketing fresh grapes did the U.S. supply of fresh grapes increase considerably.

Imports increased 10-fold from 1977/78 to 1991/92. Consumption of imported grapes rose from one-third pound per person to over 2.5 pounds.

Nevertheless, during the same period, U.S. consumption of domestically produced grapes gained a healthy 5 percent per year. An above-average 1992 U.S. grape crop and expected larger Chilean production and exports will likely increase grape consumption to a record 8 pounds in 1992/93.

[Dennis Shields (202) 219-0884]

## Imports Increase Consumption of Fresh Grapes

Season <sup>1</sup>	Supply			Utilization		Consumption per capita
	Utilized production	Imports	Total supply	Exports	Total	
	— — — Million lbs.			— — —		Lbs.
Average 1970/71-1974/75	733.9	32.4	766.3	240.1	526.1	2.5
1980/81	1,024.6	123.5	1,148.1	352.8	795.3	3.47
1981/82	979.5	201.5	1,181.0	317.5	863.5	3.74
1982/83	1,412.8	279.5	1,692.3	357.8	1,334.5	5.72
1983/84	1,342.6	320.8	1,663.4	346.4	1,317.0	5.59
1984/85	1,353.8	427.2	1,781.0	335.5	1,445.5	6.09
1985/86	1,562.8	463.6	2,026.4	386.4	1,640.0	6.84
1986/87	1,558.8	540.6	2,099.4	382.6	1,716.8	7.10
1987/88	1,432.4	682.4	2,114.8	395.5	1,719.3	7.05
1988/89	1,662.6	652.3	2,314.9	397.8	1,917.1	7.78
1989/90	1,574.5	799.5	2,374.0	393.7	1,980.3	7.96
1990/91	1,698.0	748.2	2,446.2	445.1	2,001.1	7.96
1991/92 <sup>2</sup>	1,600.8	694.5	2,295.3	437.1	1,858.2	7.28

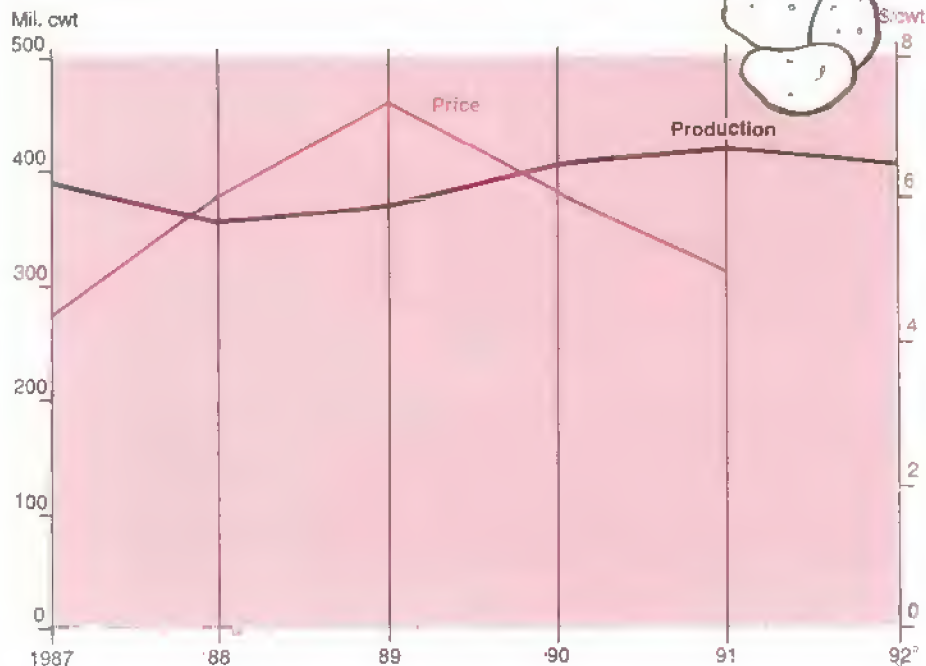
<sup>1</sup> Season beginning July. <sup>2</sup> Preliminary.



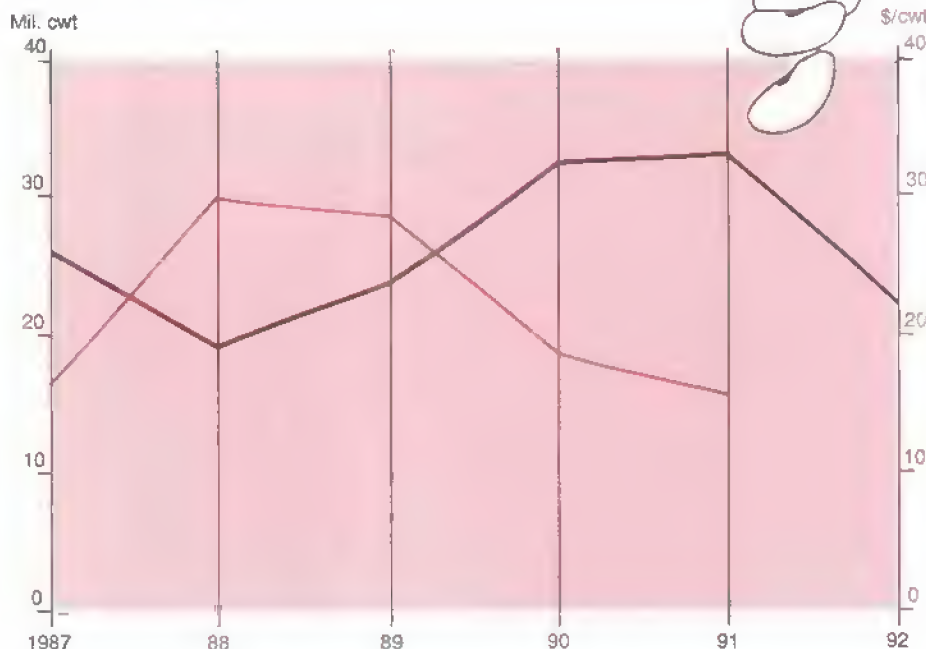
## Commodity Overview

## Sagging Prices Lead to Cutbacks in Production . . .

## . . . of Potatoes



## . . . and of Dry Beans



Season- average prices.

Dry Bean Prices  
Also To Climb

- Prices of dry beans expected higher in 1992/93 due to sharply lower acreage and yields, which pushed production 33 percent below last year's record crop. However, apparently large stocks carried over from 1991, along with weak export demand, may curb price increases.
- Production declines occurred across all the major bean-growing states, suggesting lower output for all major bean classes. Production estimates by class of bean become available in December.
- Large crops for 2 years in a row have put downward pressure on dry bean prices. Prices remained relatively low during the summer despite prospects for a substantially smaller crop in 1992, suggesting large stocks of old beans.
- The export market is not expected to give much of a boost to dry bean prices. Outlook for dry bean exports, on which the industry relies for a fourth of sales, is dim this year due to larger world production. Export demand was weak during the first three quarters of 1992 as export sales of pinto, navy, and Great Northern beans trailed year-earlier levels.

[Glenn Zepp (202) 219-0883]

**For further information, contact:** Dennis Shields, and Diane Bertelsen, fruit and tree nuts; Gary Lucier, vegetables; Peter Buzzanell, sweeteners; Doyle Johnson, greenhouse/nursery; Verner Grise, tobacco; David Harvey, aquaculture; Lewrene Glaser, industrial crops. All are at (202) 219-0883. **AO**

## Commodity Spotlight



American Textile Manufacturers Institute

## Cotton: The Comeback Fiber

**D**uring the past decade, cotton led the way as natural fibers made a comeback in textile products.

Use of natural fibers—cotton, wool, silk, and flax—fell throughout the late 1960's and 1970's, reaching just 30 percent of total fiber consumption in the late 1970's. Cotton set the pattern for use of all natural fibers, declining from the late 1960's until 1982—when it amounted to only 13.5 percent of domestic fiber use.

Cotton has come back. In 1991, per capita cotton consumption reached 24.6 pounds, the highest since 1966. Total U.S. consumption of cotton has nearly doubled since 1982. And natural fiber's share of domestic fiber use rose to 43 percent in 1991.

### Largest End Use Is Apparel

Much of the growth in cotton consumption has come from imports of cotton textiles. Prior to the 1980's the majority of cotton textile products purchased by U.S. consumers was produced in the U.S. Although U.S. mills have increased their

output, the largest percentage increase has come from cotton textile imports, which have risen each year since 1982, with the exception of 1988. In 1991, imports were nearly three times the level of 1982. U.S. textile exports have also been rising since 1984, but the cotton textile trade deficit reached 1.9 billion pounds in 1991, about 30 percent of total domestic consumption.

Cotton's major advantages over man-made fibers are breathability and absorbency—characteristics that have kept cotton dominant in products like denim and toweling. The comfort factor combined with lower prices in the 1980's has led to the rebound in cotton use, especially in apparel.

Most of the cotton used in textile products—between 60 and 65 percent—goes into the production of apparel. According to the National Cotton Council of America, nearly 2.9 billion pounds of cotton was used by U.S. textile mills in the production of apparel in 1991.

Cotton's share of fibers used in men's youths', and boys' apparel climbed to 69 percent in 1991, its highest since 1965. Men's, youths', and boys' apparel ac-

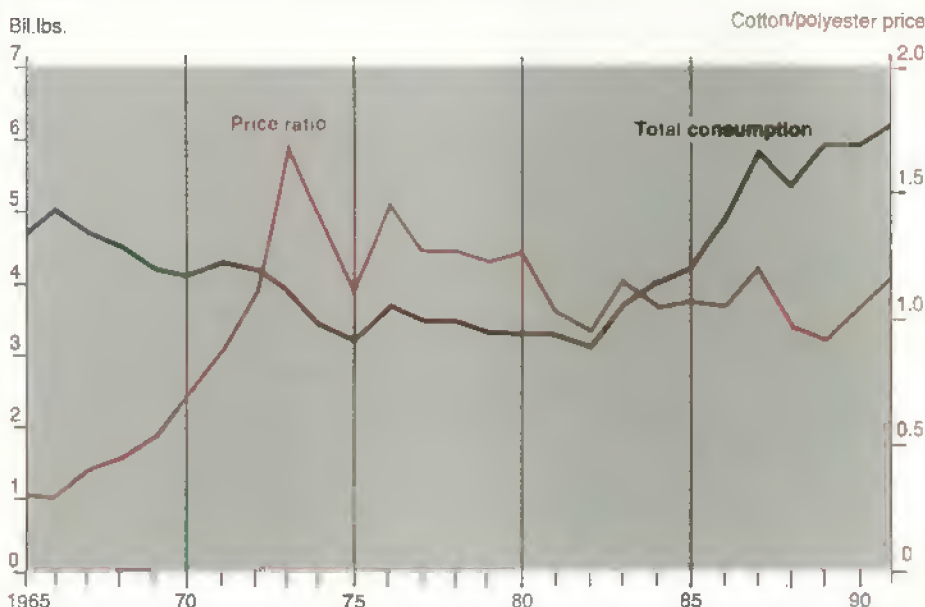
counted for about 1.8 billion pounds of cotton. Clothing in the women's, misses', and juniors', and the girls', children's, and infants' categories have also added more cotton, their share rising to 65 percent in 1991, the highest since 1967.

### Home Furnishings: A Large Cotton Outlet

Aside from apparel, cotton is used in textiles for production of home furnishings and industrial supplies. Cotton's share of the home furnishings market rebounded from a low 18 percent in the early 1980's to 23 percent in 1991. More than 1.3 billion pounds of cotton was used in 1991 by U.S. textile mills in home furnishings such as draperies, upholstery and slip covers, towels, washcloths, sheets, and pillowcases.

Towels and washcloths are made almost exclusively of cotton. In recent years, nearly 500 million pounds of cotton has been used annually in the production of these items. Over the past 30 years, cotton has maintained its share between 93 and 98 percent of fibers used for these products.

Changes in Cotton Use Can Be Traced In Part to Prices

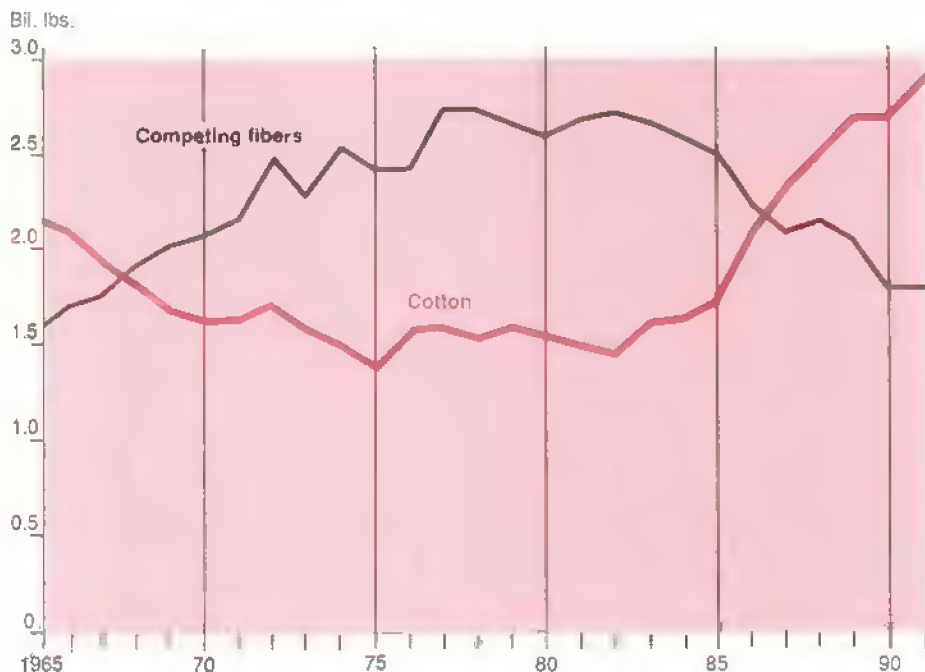


Raw fiber equivalent. Cotton prices: landed group B mill points  
Polyester prices: f.o.b. producing plants.

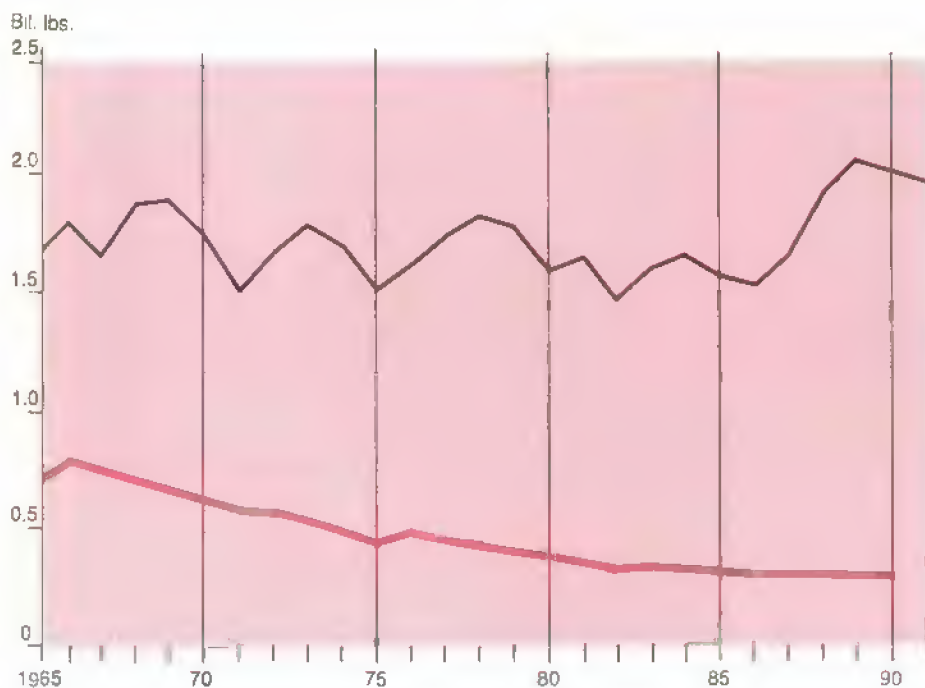


## Commodity Spotlight

## Today, Cotton Leads In Apparel Use...



## ... but Has Lost Share in Industrial Markets



Cotton use in draperies, upholstery, and slipcover fabrics increased during the 1980's, recovering market share lost to manmade fibers in the 1970's. In 1991, over 300 million pounds was utilized in this end-use market. Similarly, cotton use and share increased in the production of sheets and pillowcases. Cotton use totaled close to 240 million pounds in 1991, translating into a 63-percent market share.

Still, cotton's overall share of the home furnishings market may remain below higher levels achieved in the 1970's, due in part to the loss of the rug and carpet market. Manmade fibers are likely to remain the dominant choice in the production of carpets in the U.S. Carpets and rugs that do contain cotton are generally imported from foreign textile mills.

In contrast to the advances in the apparel and home furnishing markets, cotton use and share in the production of industrial textile products dropped below 300 billion pounds, the lowest on record. Cotton's share of the industrial use market is currently estimated at 14 percent.

The major industrial category of products made from cotton currently is medical supplies. But cotton's use in medical supplies has dropped to about 70 million pounds, 16 percent below its 1980 level. Cotton lost 20 percent of this market since 1980, primarily to rayon and other manmade fibers. Other industrial products, such as automobile furnishings, industrial thread, and woven tarpaulins—major markets in the 1960's—have followed a similar trend.

If consumers' tastes and preferences and subsequent demand for natural fibers continue as in the early 1990's, cotton's share of fiber consumption will likely remain at levels not experienced since the late 1960's. However, any further rise in domestic per capita cotton consumption will likely come from increased fiber use or new products rather than additional increases in market share.

[Bob Skinner and Les Meyer (202) 219-0840] **AO**

## World Agriculture & Trade



National Sunflower Association

### U.S.-EC Oilseed Dispute Eases

A trade dispute between the U.S. and the European Community (EC) has simmered for over 5 years and heated up in recent months. The dispute centered on EC subsidies for oilseed production at prices well above world market levels. The high EC support prices have provided a generous incentive to increase oilseed production, displacing imports of oilseeds from the U.S. and other oilseed-exporting countries (Argentina, Brazil, and Canada).

Two panel reports of the GATT (General Agreement on Tariffs and Trade) have ruled that EC oilseed policies contravene EC obligations under the GATT. But the EC had objected to altering a support regime that was already revised as a prelude to wholesale reform of its Common Agricultural Policy (CAP).

#### *Soybeans, Sunflowers, & Subsidies*

Support prices for EC rapeseed, sunflowerseed, and soybeans, already above prevailing world prices, increased sharply in the late seventies and early eighties, ris-

ing to as much as 2.5 times world price levels during the 1980's. At the same time, EC support prices for alternative crops—principally grains—weakens, increasing the attractiveness of oilseed production to grain producers.

As a result, EC oilseed production rose rapidly and more than quadrupled in the 1980's. Rapeseed production grew from about 2 million tons in 1980 to nearly 7 million in 1991 (excluding additional production from the former East Germany). Production increases for sunflowerseed and soybeans were equally dramatic.

Total oilseed production rose from over 2 million tons to more than 10 million during the 1980's, with most of the increase between 1981 and 1987. The rapid growth slowed in the late 1980's, as budgetary problems prompted the EC to introduce measures to reduce the effective support price.

While EC oilseed production expanded, U.S. exports of soybeans and soybean meal to the EC began to fall. U.S. soybean exports to the EC peaked in 1982 at 11.4 million tons, recovered somewhat in 1987 at 10.3 million tons, but have otherwise declined. U.S. shipments of soybean meal exhibited a similar pattern—reaching a record 4.2 million tons in 1983 before falling to one-half million tons and less in 1989 and 1990.

The U.S. lost share in the EC market not only to EC-produced oilseeds but also to soybeans and soybean meal from South American producers—Brazil, Argentina, and Paraguay—which entered the EC market in the 1970's. The EC's expanded production has been mainly in high-oil-content seeds, such as rapeseed and sunflowerseed, permitting vegetable oil needs—previously met by crushing imported soybeans—to be met by domestic sources. Consequently, EC policy encouraged a large shift in imports from soybeans to soybean meal, where South American countries were highly competitive.

### *U.S. Complaint, EC Response*

The U.S. objected to the EC subsidy because it abrogated an important trade concession and harmed the interests of U.S. soybean producers. During the Dillon

### **At Press Time ... An Agreement**

As *AO* went to press, an agreement was reached between the U.S. and EC over oilseeds, internal farm supports, and the volume of subsidized agricultural exports. The agreement also includes a commitment from both the EC and U.S. to refrain from unilateral trade action against each other. Although details of the November 20 agreement and adjustments by the EC and U.S. are not yet available, here are some highlights.

The EC agreed to limit its oilseed production, setting aside 15 percent of the area now planted to oilseeds in the first year of the agreement, and setting aside 10 percent in subsequent years. Oilseed area would reach 5.128 million hectares by 1995/96 minus the EC program set-aside rate of at least 10 percent. Oilseeds could be grown for industrial purposes on set-aside acres only under very strict conditions. The EC agrees to undertake binding arbitration if the U.S. believes the agreement has been breached.

In addition to the oilseed settlement, the U.S. and EC reached accord on other provisions on agricultural issues related to the 6-year Uruguay Round of multilateral trade negotiations under the GATT. The volume of subsidized farm exports would be cut by 21 percent over a 6-year period, and both the EC and U.S. agreed to a 20-percent across-the-board reduction in internal price supports. USDA Secretary Madigan noted that the U.S. has been cutting supports at that pace, and no additional U.S. cuts would be required. The agreement must still be approved by EC member states.



Round of multilateral trade negotiations under the GATT (1960-61), the EC had granted a zero-tariff concession on imports of soybeans and soybean meal. The value of the oilseed zero-tariff binding to U.S. soybean farmers is huge—oilseeds and products are the largest category of U.S. agricultural exports to the EC, accounting for 28 percent of all U.S. agricultural sales to that region.

In December 1987, the U.S. government accepted a petition initiated by the American Soybean Association charging that the EC's oilseed support policies constitute an unfair trade action under Section 301 of the Trade Act of 1974. After consultations with the EC failed to resolve the issue, the U.S. in January 1988 requested a GATT dispute settlement panel, which did not meet until June 1989.

Meanwhile, the U.S. Trade Representative determined that the EC oilseed policy constituted an unfair trade practice. Retaliatory measures called for under Section 301 were deferred until the ruling of the GATT panel in December 1989.

In January 1990, the GATT Council accepted the panel report, which ruled that the EC's oilseed policy nullified and impaired the benefits to the U.S.—and other oilseed exporters—of the 30-year-old tariff concession. The EC indicated its intention to comply with the panel's recommendations and to modify the oilseed policy during implementation of a Uruguay Round agreement. The agreement, expected in 1991, did not occur.

In response to the GATT panel finding, the EC adopted a new oilseed regime in December 1991, describing it as a transition program pending comprehensive reform of the EC's Common Agricultural Policy. The regime shifted oilseed support from a processor payment based on tonnage produced, to a producer payment based on area planted.

The U.S. determined that the new policy did not adequately address the findings of the GATT panel, and requested that the panel be reconvened. The GATT panel ruled in March 1992 that the new regime continued to deprive U.S. grow-

ers of the benefits of the earlier tariff concession. The EC rejected the ruling, prompting the U.S. to threaten retaliation in the amount of estimated damages—\$1 billion—incur by U.S. soybean producers as a result of lost export sales.

The EC announced that it would attempt to renegotiate its tariff bindings on oilseeds and oilseed meal, and intensive negotiations between the U.S. and the EC followed. After negotiations failed to produce a settlement, the U.S. requested binding GATT arbitration in September to determine the level of compensation owed by the EC to the U.S. and other countries that claim they are disadvantaged by the EC oilseed policy.

The EC refused to accept the U.S. arbitration proposal, and intense bilateral negotiations continued.

### *Meanwhile, A New Policy*

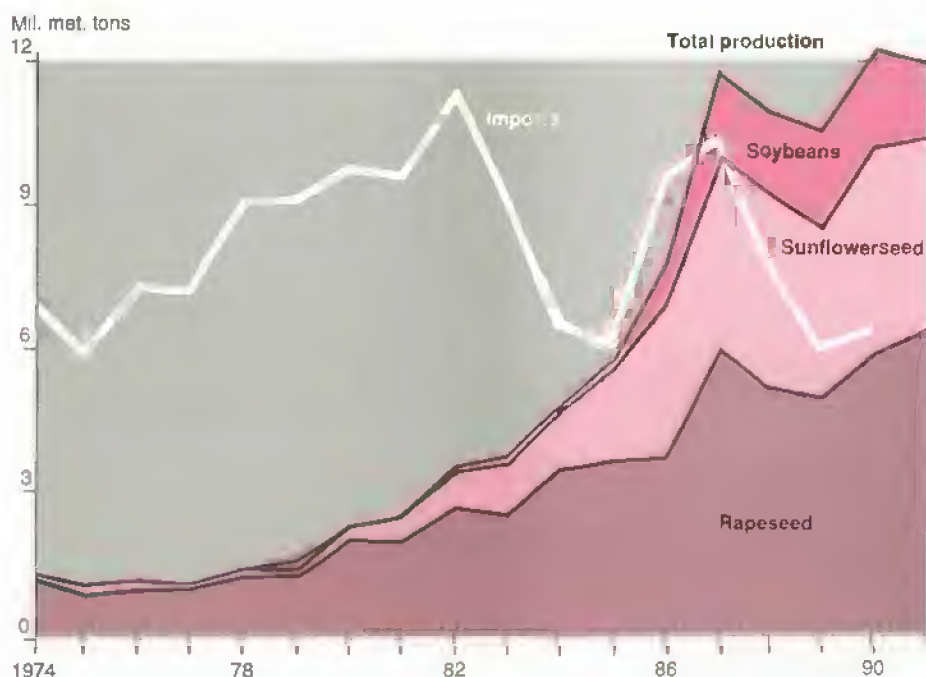
The EC's 1992 oilseed crop is the first to reflect the new support scheme put in

place in December 1991. In addition to the payment for oilseed area, producers now receive world market prices for their oilseed sales. The combined price-plus-payment system represents a drop in average producer returns from recent years for soybeans, but an increase for rapeseed and sunflowerseed.

The new program covers oilseed crops harvested in 1992, including those planted in fall 1991. The policy change was approved well after the fall rapeseed crop had been planted, but producers of sunflowerseed and soybeans, which are generally spring-planted crops, had more time to assess the new policy. Uncertainties surrounding the implementation of the new regime may have led many EC producers to seek alternatives to oilseeds. Preliminary estimates of 1992 oilseed production indicate a mixed response by producers to the new support measures.

EC rapeseed production is estimated to have declined by 15 percent. A severe drought in northern Europe, a key rapeseed-producing area, was primarily

As EC Oilseed Production Soars, Imports from U.S. Fall

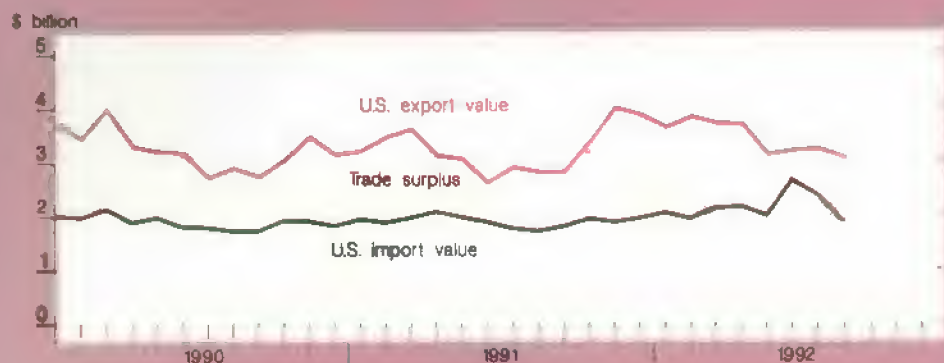


Source: Eurostat

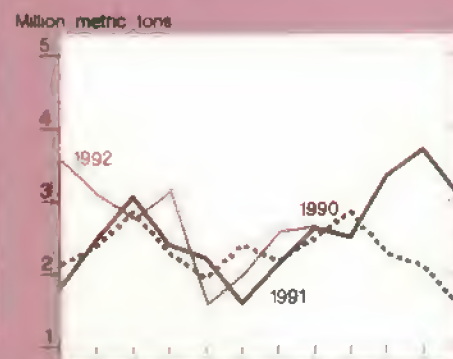
## World Agriculture & Trade

## U.S. Trade Indicators

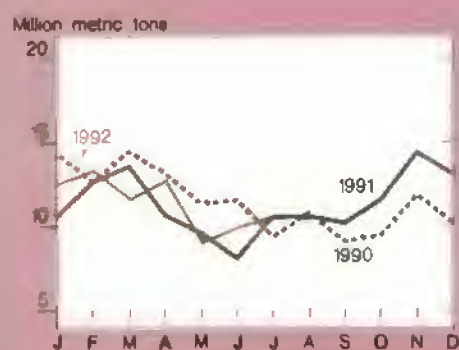
### U.S. agricultural trade balance



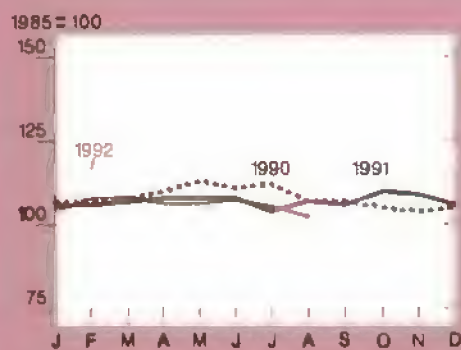
### U.S. wheat exports



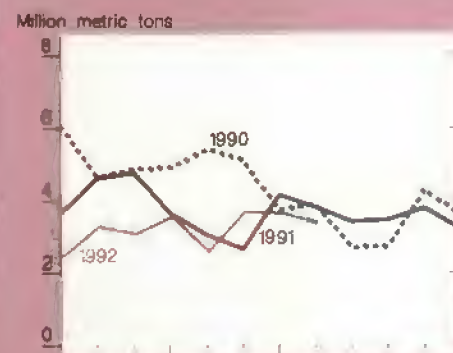
### Export volume



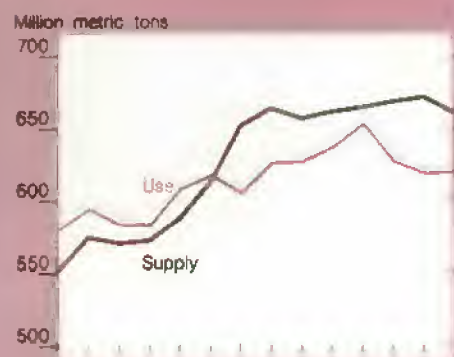
### Index of export prices



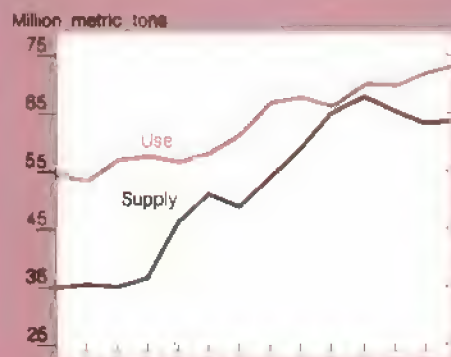
### U.S. corn exports



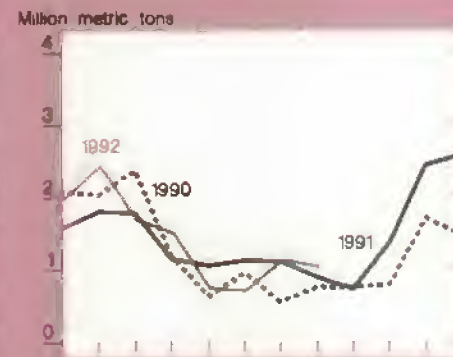
### Foreign supply & use of coarse grains



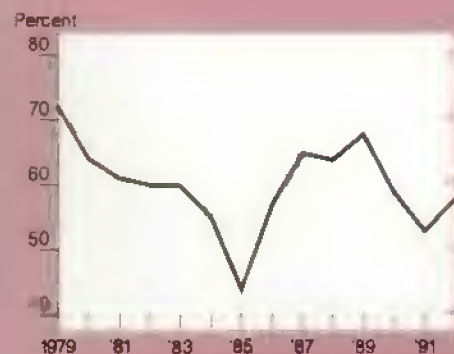
### Foreign supply & use of soybeans



### U.S. soybean exports



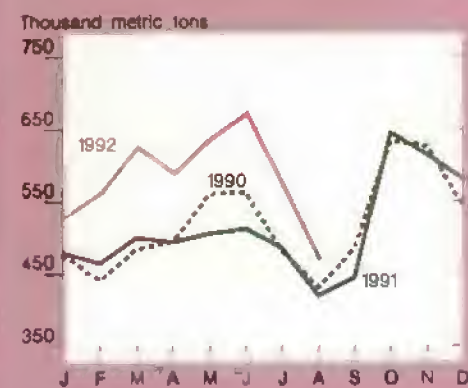
### U.S. share of world coarse grains exports<sup>1,2</sup>



### U.S. share of world soybean exports<sup>1,2</sup>



### U.S. fruit, nut & vegetable exports<sup>3</sup>



<sup>1</sup>Excluding intra-EC trade <sup>2</sup>October-September years

<sup>3</sup>Includes fruit juices



## History of U.S.-EC Oilseed Dispute

**December 1987**—American Soybean Association files Section 301 petition against EC oilseed policy.

**January 1988**—U.S. government agrees to investigate charges, brings dispute to GATT.

**July 1989**—U.S. Trade Representative finds EC policies constitute unfair trade practice that injures U.S. producers under Section 301; delays retaliatory measures.

**January 1990**—GATT Council adopts GATT panel ruling that EC oilseeds policy has nullified and impaired benefits of 30-year-old duty-free trade concession and violates GATT rule on national treatment. EC agrees to modify policy in implementation of Uruguay Round agreement.

**December 1990**—Uruguay Round negotiations break down at Brussels Ministerial meeting.

**July 1991**—EC announces oilseed reform proposal.

**December 1991**—EC Agriculture Council grants final approval to new oilseed policy.

**January 1992**—U.S. requests that GATT panel be reconvened to consider whether EC's new policy implements panel's findings.

**March 1992**—GATT panel rules that EC's new policy continues to impair duty-free binding, directs EC to either modify policy or renegotiate concessions. EC refuses to modify policy.

**April 1992**—U.S. announces intention to levy \$1 billion in tariffs on EC goods.

**June 1992**—U.S. Trade Representative publishes list of products for possible retaliation.

**November 1992**—U.S. announces retaliatory tariffs on \$300 million of EC goods, effective December 1992.

responsible for the 1992 production drop, but area planted also fell. Output was further affected by an increase in spring-planted rapeseed, which has lower yields per acre than the fall-planted varieties but requires fewer inputs. In 1992, spring rapeseed accounted for up to 10 percent of rapeseed area in some member countries, while previously the fall-planted varieties comprised virtually all of the rapeseed crop.

Sunflowerseed production is estimated up by 8 percent, with a large increase in Spanish production outweighing declines in France and Italy. Spanish area rose nearly 38 percent as drought conditions favored planting sunflowers in lieu of corn, and producers responded to the oilseed area payment by increasing sunflower planting on marginal land.

Soybean returns are hurt the most of any oilseed by the new policy. As a result, many soybean producers have turned to corn for a higher return. Soybean production is estimated to fall by an average 13 percent in the EC, reflecting a 13-percent decline in Italy, the EC's largest soybean producer. Production in France will likely decline by roughly twice that rate.

For the 1992 crop, the oilseed payment for each crop will be reduced by 1 percent for each 1 percent that total planted area exceeds a ceiling called the Maximum Guaranteed Area (MGA). In 1992, estimated area planted to oilseeds is within the MGA for rapeseed and soybeans. Spanish sunflower area is estimated to have exceeded its MGA, which will reduce the payment to Spanish sunflowerseed producers.

Most of the provisions of the support system adopted for the 1992 crop will remain in effect under comprehensive reform of the CAP, enacted in July 1992. Reform measures affecting other agricultural products—grains, protein crops, livestock, and dairy—began to take effect with crops planted this fall. Support to other arable crops (grains and protein crops) will shift to a combination of price support and direct payments to producers for the 1993 crop.

Eligibility for payments will require that large producers of all arable crops—including oilseeds—set aside 15 percent of their arable land. The competitive position of oilseeds in EC farmers' cropping scheme could be changed again by these measures.

## Retaliatory Action Was Threatened

After a U.S.-EC meeting in Chicago on November 2 failed to produce an agreement on the oilseeds dispute, the U.S. Trade Representative on November 5 announced a trade concession withdrawal that would assess prohibitive duties of 200 percent on about \$300 million in EC exports to the U.S. Unless the oilseeds dispute was resolved by December 5, the retaliatory tariffs would affect U.S. imports of white wine, rapeseed oil, and wheat gluten from the EC. The 30-day grace period allowed time for further negotiations.

The action followed a U.S. appeal to the GATT Council for authorization to apply retaliatory measures after several months of intense bilateral talks failed to resolve the dispute. The EC succeeded in blocking Council approval of higher duties.

The size of the threatened retaliation is unprecedented. The \$300 million in products scheduled for higher duties in December is the first "tranche" of a possible \$1 billion in imports earmarked for retaliatory action. If additional measures were imposed, a wider range of EC exports to the U.S. would be affected.

## World Agriculture & Trade

In addition to the original list of possible targeted items, which included pork products, cheeses, wines, liqueurs, confections, and other agricultural products, the U.S. released a list of additional products subject of trade action if negotiations failed to result in adequate reform of the EC's oilseed regime. Included on this list are recorded and unrecorded magnetic tape and recorded laser discs, perfumes, tires, glassware, ceramic tiles, and other industrial products.

U.S. imports of agricultural products from the EC (excluding distilled spirits) amounted to \$4.4 billion in calendar year 1991. Total 1991 U.S. imports from the Community were valued at \$86.5 billion. [Mary Anne Normile (202) 219-0620]

AO

## Progress Report: The CEE's

**T**hree years have elapsed since political and economic upheaval shook Central and Eastern Europe (CEE), and the CEE countries continue to adjust to market-based economies. In that time, the CEE's have liberalized prices of most agricultural commodities, passed land reform legislation, and democratized political processes. Last year, AO reported at length on the CEE foray into the free market, in a two-part series (November and December 1991). This article presents an update on CEE progress in transforming their agricultural sectors and their overall economies.

### Economies Stabilize At Lower Levels

Inflation has slowed in the Czech and Slovak Federal Republics, Hungary, and Poland, and gross domestic product (GDP) is expected to begin growing in the next 2 years. In Bulgaria and Romania, inflation should slow in the next year or so, and their economies are likely to

adjust further to market forces. But unemployment is likely to be a continuing problem over the next few years in all the CEE countries, especially in rural areas where new jobs are being created only slowly.

The economy of Albania shows signs of improvement, as employment has begun to rise and reform measures have returned small portions of land to peasants. But the economic situation in the former Yugoslav republics is nearly impossible to gauge, due to the war and chaotic conditions in that region.

While the economic changes generally signal improvement, the past year has not been without difficulties, both economic and political. As the CEE governments continue to make tough decisions to orient their economies toward private markets, they have come under increasingly fierce criticism by citizens. Higher prices and unemployment have led to a decrease in the standard of living and an increase in crime. Economic dislocation caused by reforms has fueled latent nationalism. While nationalism has exhibited its most hostile form in Yugoslavia, nationalist political parties have made their presence felt elsewhere in the region.

The Czech and Slovak Federal Republic (CSFR) is splitting in two, reflecting serious differences over the pace of economic reform. In Romania, citizens registered their discontent with economic hardship by reelecting Ion Iliescu, an ex-communist advocating a slower economic transformation. Ultra-nationalist candidate Gheorghe Funar garnered over 10 percent of the popular vote.

In Poland, one year and three governments later, stability is returning to the country that plunged into reform ahead of its neighbors. The Bulgarian government, after a brief period of political cooperation, recently collapsed. Disputes over the pace of reform and the fierceness of the government's anti-communist stance led to a vote of no confidence by two parties of the three-party coalition government. And heated political debate in Hungary has focused on a recent speech with nationalist overtones, made by one of the nation's highest ranking

public officials—a vice president of the ruling Hungarian Democratic Forum.

Further economic and political reform in the CEE countries will depend heavily on a resolution of the "nationalism crisis" and the continuation of citizens' freedom to speak about government policies.

### Drought Adds to Problems Of CEE Agriculture

Agricultural output in CEE countries fell during 1992, primarily due to drought. In addition, surplus production in 1991 and confusion over land ownership in the midst of reform led farmers to reduce plantings of many crops in 1992. Rising costs of inputs relative to producer prices also forced farmers to reduce their use of fertilizers and other inputs. Distorted price signals under the command system had encouraged excessive use of inputs until recently, mainly fertilizers.

Low rainfall, hot weather, and a reduction in planted area and inputs contributed to an average 20-percent decline in crop production throughout the region. Livestock numbers in most of the region have also dropped, leading to tight dairy supplies in Poland and dairy product shortages in Romania.

The drought and resulting low production in 1992 stand in sharp contrast to 1991, when production in the northern CEE countries was high, consumer demand low, and exporting the excess difficult.

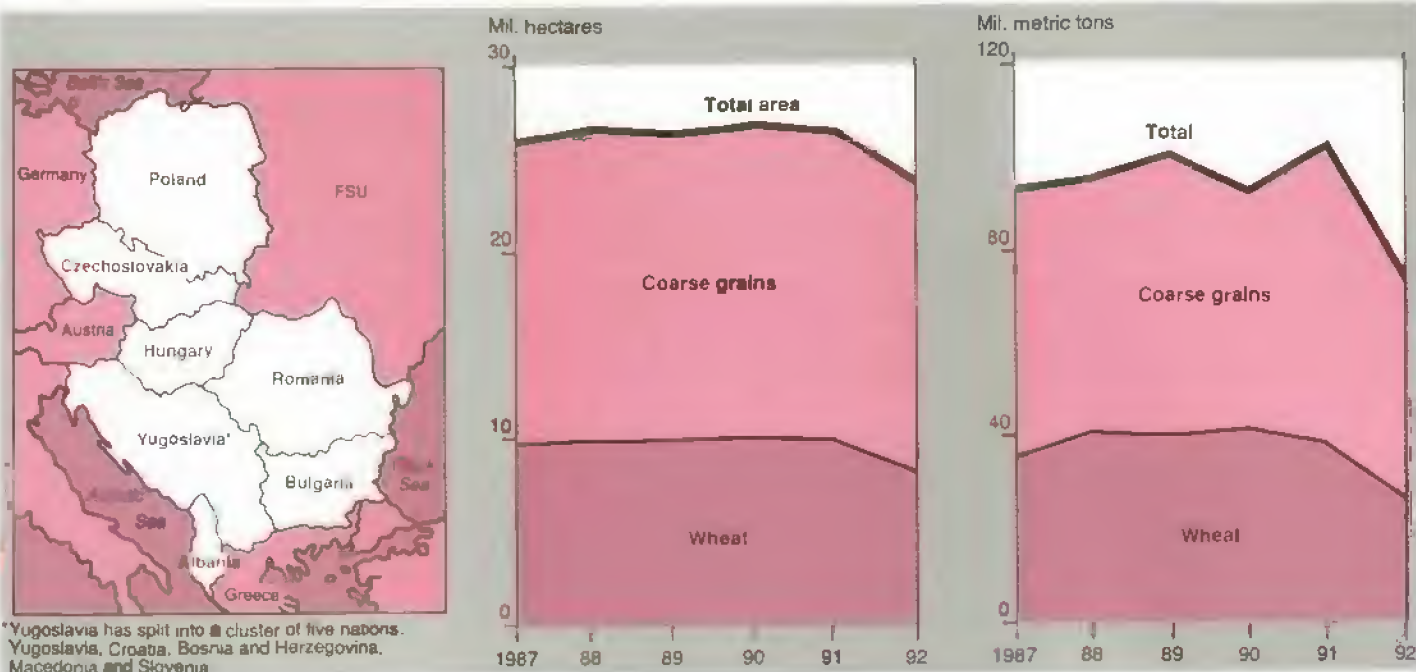
Grain production was especially hard hit by the drought. Wheat production in the CEE countries in 1992 is down 30 percent from 1991. The newly reorganized Yugoslavia, consisting only of Serbia and Montenegro, had the lowest wheat production in 27 years, at 2.2 million metric tons. Likewise, coarse grain production in the region fell by 29 percent in 1992. Most notably, Polish coarse grain output dropped an estimated 34 percent from 1991.

In Romania, production of wheat and coarse grains declined 40 and 26 percent from 1991 levels. Farmers who harvested grains may be able to take



## World Agriculture &amp; Trade

## CEE Farmers Reduce Planting in 1992 . . . and Drought Slashes Output Further



advantage of relatively high domestic grain prices this year compared with last.

Changes in demand at least partially mitigate the brunt of these supply shocks. Lower demand for livestock products following the removal or reduction of consumer subsidies in 1990-91 has led farmers to cut livestock herds and to feed more efficiently. The result is a decrease in demand for feed grains. In the CSFR, Hungary, and Slovenia, where consumer demand for dairy products has dropped more precipitously than cattle numbers, an excess supply of dairy products persists.

Animal numbers in the region are expected to continue declining after last year's large reductions in herd size (20 percent in some cases for 1991-92). In Bulgaria and the CSFR, cattle numbers are expected to dip slightly, while in Hungary, Poland and Romania, larger declines are expected, on the order of 15 percent.

Likewise, swine numbers are also expected to fall. For the year ending June 1992, Hungary saw a 22-percent decline in the number of swine, a decline that is slowing. Romania, Bulgaria, Poland, and the CSFR are expecting slight decreases in their swine herd in the coming year. All the CEE countries are expected to decrease sheep herds and poultry stocks in the coming year as well, following last year's trend.

### Grain Imports To Make Up for Drought

While a smaller livestock herd reduces the demand for feed grains, livestock numbers are not expected to drop enough to avert feed imports. In contrast to last year, when most CEE countries were actively seeking export markets for their grains, this year some will be shopping for imports to meet domestic demand.

Last year, Hungary exported over 3 million tons of grains, mainly wheat, while this year exports may only reach half that figure. Romania is expected to have

further shortfalls this year and may need to import approximately 2 million metric tons of wheat and corn, most likely through aid packages, as the country has little or no hard currency to pay for imports. Poland is also expected to import grain to meet feed demand this year; major imports will include wheat and coarse grains. Bulgaria and the CSFR, each relatively self-sufficient in grain production last year are both likely to export some wheat.

Oilseeds, fruits, and vegetables were also hard hit by the drought, with production 10-15 percent lower in 1992 than in 1991. Moreover, the Hungarian canning industry is in trouble—losing some 40 percent of production capacity to bankruptcy, exacerbated by loss of traditional markets—former Soviet republics—and falling domestic consumption. The canning industry has been a reliable market outlet for producers, but recently fruit and vegetable growers cannot count on payment for their output in a reasonable time period.

## World Agriculture & Trade

Despite the difficulties brought on by drought and the resulting decline in output, some signs indicate that market forces are functioning. Under the command system of producer and consumer subsidies, shortages and lines at shops would surely have resulted from the drought. While supplies may be tight this year, especially in Romania, market forces now in place allow prices to adjust to market-clearing levels. Decreased food demand because of lower incomes and a lack of consumer food subsidies is causing food prices to rise more slowly than overall consumer prices, making food products relatively inexpensive compared with other consumer goods.

### Northern CEE's Move Ahead

In the northern CEE countries—Hungary, Poland, and the CSFR—price liberalization is all but complete, evidenced by lower inflation and stabilization of demand and supply. As a rule, agricultural prices in the northern CEE countries have risen more slowly than overall consumer prices.

Privatization and land reform, while proceeding at different paces and through different methods, have begun to put state land and properties into private hands. Privatization using coupons in the CSFR has achieved this more quickly than the privatization programs of Hungary and Poland. State trading monopolies have been functionally disbanded and private citizens now engage in trade with few restrictions.

The EC association agreements established with Hungary and Poland have taken effect, and will continue to increase trade between the EC and these two countries in the coming years. The EC association agreement with the CSFR has been put on hold, pending renegotiation with its two individual republics after their separation becomes final on January 1, 1993.

Further south, in Romania and Bulgaria, price liberalization has led to skyrocketing inflation, especially in Romania—where inflation for the 12 months ending September 1992 was on the order of 1,000 percent. These countries, unlike their northern neighbors, have not yet introduced rigorous fiscal stabilization programs and are printing money to finance large government deficits. Most prices in these two countries have been decontrolled and subsidies have been decreased or abolished. Privatization is moving slowly, but progress has been made.

Although Romania has implemented land restitution farmers, who are still unsure about ownership rights, remain reluctant to plant crops. In Bulgaria, where land restitution has proceeded more slowly, farmers are experiencing a smoother transition to private ownership. However, administrative bottlenecks threaten to seriously delay completion. While these southern CEE countries have eased trade restrictions, state trading monopolies still exist, especially in Romania where the government is reluctant to relinquish this area of control. Both countries continue to rely on some export controls.

Central and East European farmers learned important lessons in market operations during 1991/92. When farmers responded to market forces by planting less for the 1992 season, the drought caused a deeper cut in output than had been planned. In the case of Hungary, this simply means less exports, but in the case of Poland and Romania, it is a return to recent days of financing imports to meet domestic demand. For fledgling economies struggling to implement market reforms, the need to finance imports to meet domestic demand is an unwelcome pressure.

Future agricultural market reform depends upon both economic success and political support. As the first difficult wave of economic reform comes to a close and the CEE economies begin to strengthen, the politics of reform may begin to play a much larger role.

[Jason Lamb (202) 219-0620] **AO**

## Environment & Resources



### Modest Rise In Near-Term Energy Prices

**T**he short-term outlook for energy prices is good news for agriculture, with direct energy use accounting for 5-6 percent of total farm expenses. Including fertilizer, the farm energy expenses rise to more than 10 percent of total farm expenses.

According to the latest Department of Energy (DOE) short-term outlook, only modest increases are foreseen for consumer energy prices. Given the sluggish growth of the U.S. economy in the near term, the price of crude oil should fluctuate around \$20 per barrel over the next few quarters.

DOE's outlook includes a rise in gasoline prices in urban and suburban regions, where new oxygenate content standards are taking effect, by about 4 cents per gallon by February 1993. However, in rural areas, which are not affected by the oxygenate standards, gasoline prices should be flat in the short term. The national average gasoline price is expected to rise by 3 cents a gallon by November 1993.



Diesel fuel and home heating oil prices are expected to increase 5 cents by November 1993, as lower sulphur content requirements are met. And natural gas prices are expected up about 6 percent in 1993, assuming normal weather.

### ***1990 Oil Shock Was Milder Than Others***

The U.S. economy reacted to the energy shock of 1990 very differently from the oil shortage of the 1970's. Industrialized economies, including the U.S., were far less vulnerable in 1990 than they were to the oil shocks of 1973-74 and 1978-79. The resilience is likely to continue for several reasons.

Although U.S. energy use has risen since 1974, its reliance on crude oil has declined. The U.S. used 12.1 percent more energy in 1991 than in 1974, but 2 percent less petroleum and 8.6 percent less natural gas. Per capita energy use declined 4.5 percent over the same period, and a smaller amount of energy was required to produce a dollar of real gross domestic product (GDP)—almost 36 percent less per dollar of real GDP. Automotive fuel efficiency also rose dramatically, from 13.4 miles per gallon in 1974 to 20.9 per gallon in 1990.

Alternative energy sources, including energy used to generate electricity, increased as well over this period. Although electricity use rose significantly from 1974 to 1991, the energy has been generated increasingly by coal and nuclear power. Nuclear energy generation increased almost fivefold over the period, while natural gas and petroleum used for electricity generation declined 18 and 65 percent.

Energy generated by solar, geothermal, and biomass sources play a small but increasing role in meeting U.S. energy demand. The energy from these alternative sources increased 110 percent from 1974 to 1991. Hydroelectric power use declined by almost 7 percent, however.

The changes in the U.S. were mirrored in most of the developed world. Japan, Germany, the United Kingdom, France, and Canada followed similar, pronounced changes in patterns of energy use and energy sources. Italy was one of the few industrialized nations that did not embark on an ambitious electrical nuclear power development program.

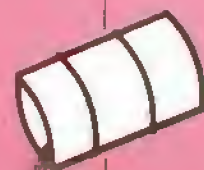
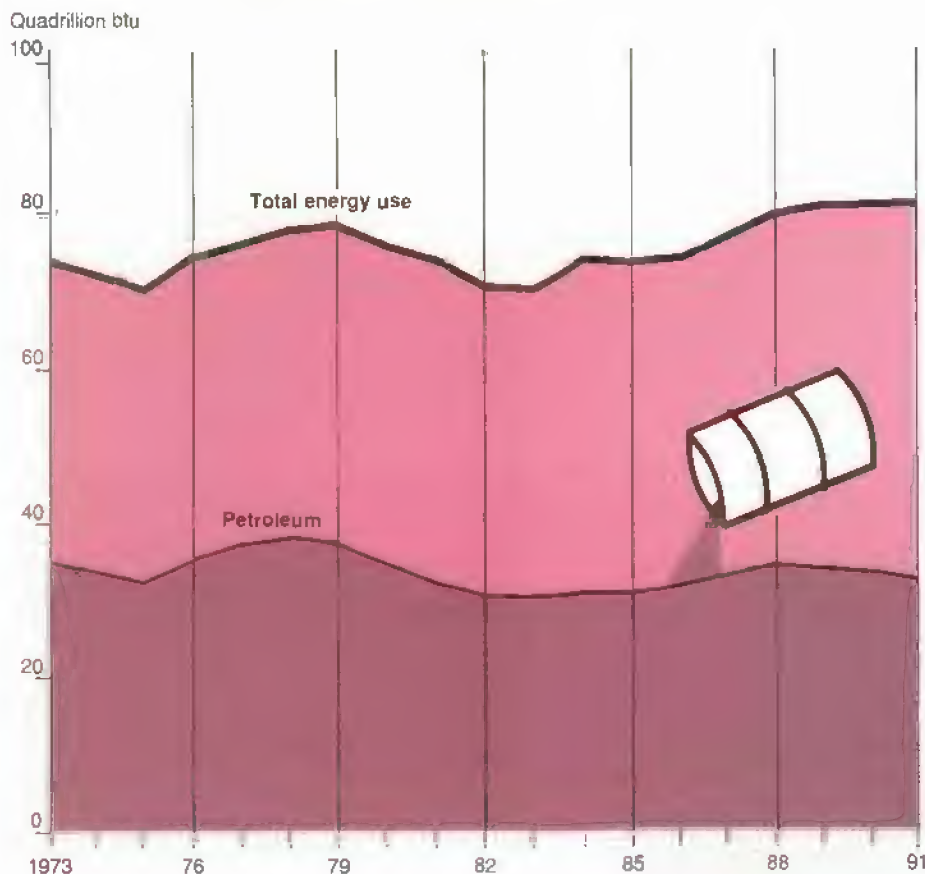
The radical change in energy use came from a combination of: (1) higher taxes on energy, (2) higher wholesale energy prices that induced fuel conservation, and (3) substitution of nonpetroleum inputs in production. Intra- and intergovernmental programs such as the Strategic Petroleum Reserve and other reserve-sharing arrangements among the major industrial powers also helped developed economies to become less susceptible to sharp crude oil price runups or supply disruptions.

On the supply side, new oil production from Alaska, the North Sea, Mexico, and the former Soviet Union have further mitigated the dependence of the world on the Organization of Petroleum Exporting Countries (OPEC).

### ***Price Increases In the Long Term***

Over the longer term, according to the DOE's Energy Information Administration (EIA), real crude oil prices are likely to rise over the last decade of this century and continue rising through the first decade of the 21st century. EIA forecasts annual growth of about 4 percent in the real crude oil price from 1992 to 1999, slowing to 2.4 percent per annum in the first decade of the 21st century. If recent history is any guide, oil price shocks may still occur, adding a cyclical pattern to the actual crude prices. Such oil price changes will likely have extremely

**Oil's Share of U.S. Energy Consumption Declines**



## Environment & Resources

### Adjusting to Oil Price Shocks

The industrialized economies have weathered three oil price shocks over the past two decades. The most recent, in 1990, had a much less severe impact on the U.S. economy, including agriculture. But the dramatic oil price increases of 1973-74 and 1978-79 highlighted the critical role of crude oil and manufactured energy in the U.S. economy.

Those oil price shocks also rippled through rural America and the farm sector. Indeed, in 1980 and 1981, the stagflation that plagued the U.S. economy was largely attributable to the sharp oil price increases of the 1970's. The impacts of the 1973-74 oil price rises on farm and rural economies were mitigated somewhat by a sharp rise in commodity prices that occurred around the same time—coinciding with a surge in farm exports.

By contrast, the farm sector and the rural economy suffered more adverse effects than the general economy from oil price shocks of 1978-79 during the recessions of the 1980's than in the 1974 recession. Increased energy expenses cut net farm income by raising production expenses, and at the same time forced the adoption of less energy-intensive technology in the manufacturing sector.

Cutbacks in overall manufacturing employment, resulting from higher energy expenses that raised production costs, hit manufacturing-dependent rural economies, and was largely responsible for the above-average declines in rural employment during the early 1980's. In 1982, rural manufacturing employment fell 7.3 percent, exceeding the urban manufacturing employment drop of 6.6 percent.

Rural residents saw a further decline in their living standards, as they were hit with higher-than-average increases in space heating and transportation costs. While urban and suburban housing is typically heated with natural gas or electricity rural homes used mainly LP (liquefied petroleum) gas and fuel oil. The LP gas and fuel oil prices reacted quickly and fairly proportionately to the increases in crude oil prices; natural gas and electricity prices rose more slowly.

With less access to public transportation or carpooling, the ability of a rural resident to adjust to a surge in gasoline prices was less than that of the typical urban resident. Finally, rural service sector businesses became less profitable as farmers, miners, and manufacturing workers had lower earnings, with both individuals and businesses absorbing higher energy expenses.

volatile leads and lags—making any long-term cyclical projection difficult.

The long-run consensus of U.S. academic, business, and government energy forecasters is that, since a large share of oil reserves are in Mideast OPEC countries, despite new discoveries elsewhere, long-term supply growth will be subject to OPEC's ability to control supply. With world energy and petroleum demand expected to increase with economic growth, available supply is not likely to keep up with demand, leading to price increases.

One scenario predicts growth in the world economy of 2 percent per year,

accompanied by an increase of around 1.25 percent in petroleum demand. If OPEC market power is effective and allows petroleum supply to grow at just 1 percent annually, crude oil prices must rise faster than the inflation rate. Petroleum users could draw down their stocks and keep prices down temporarily. But the following quarter, prices would likely be even higher than otherwise.

Aside from supply control, other factors may contribute indirectly to increased energy prices. Although electricity use has grown over the last two decades, many electric utility analysts see a slowing in growth as electric power companies turn to pricing that induces conservation, in-

cluding subsidizing energy-efficient appliances. So the substitution of electricity for fossil fuel will likely be smaller than in the 1980's.

Others believe that most of the inexpensive and relatively simple energy conservation technologies are already in place, making subsequent efficiency gains more costly and slower in arriving. Improvements in automobile mileage and other energy-saving trends—such as replacement of gasoline with diesel power in farming and construction—likely have approached saturation, under current technologies.

Environmental regulations may also inadvertently restrain energy conservation. For example, the increasing oxygenation requirement and removal of lead from gasoline actually require more crude oil per gallon of gasoline. This partially offsets the energy savings of higher mileage per gallon.

### Agriculture & Energy Use

Like the U.S. economy in general, the farm sector specifically made some significant, and similar, adjustments in the pattern of energy used from 1974 to 1991. The farm sector adjusted by increasing overall energy efficiency and conserving expensive petroleum and natural gas. In contrast to the general economy, however, farming has decreased electricity use by almost 8 percent.

The most dramatic energy savings in agriculture came from the increased use of less expensive diesel fuel for power equipment such as tractors and combines. As gasoline-powered vehicles were replaced by more energy-efficient diesel-powered equipment, petroleum use per real dollar of equipment expenditure declined. Gasoline use declined almost 65 percent over this period, while diesel fuel use rose only 2.4 percent. Eventually, with adoption of low- and minimum-tillage technology and more efficient diesel fuel, petroleum use declined absolutely.



## Environment &amp; Resources

## U.S. Farms Rely Less on Gasoline for Energy

	1974	1991	Percent change
Gasoline (bil. gal.)	3,710	1,271	-65.7
Diesel (bil. gal.)	2,620	2,683	2.4
LP gas (bil. gal.)	1,375	587	-57.3
Natural gas (bil. cu ft.)	137	60	-56.2
Electricity (bil. kw. hrs.)	38	35	-7.9
Total energy (quads)	1,224	767	-37.4
Thousand BTU per \$ 1987 (farm GDP)	24.16	10.48	-56.6
Farm GDP (\$ bil. 1987)	50.7	73.2	44.4

A quad is a quadrillion BTU's (British thermal units).

The general economy made a similar adjustment in industrial uses—substituting more efficient diesel-powered for gasoline-powered equipment. Aggregate data mask this efficiency change, because total gasoline used in the U.S. actually increased 7.8 percent from 1974 to 1991. Mileage efficiency increased, but so did the number of automobiles. As most of this switch to diesel was taking place, the relative price of gasoline to diesel fell. The last several years have seen the relative price of gasoline fall back to levels of the early 1970's.

Rural areas and farming are likely to be affected only marginally by the 1990's energy situation, because they have already made significant adjustments to the energy world of the 1980's and 1990's. Even with unforeseen increases in crude oil prices, the economy and U.S. agriculture appear better able to withstand oil price increases than in the past, because of these adjustments. Non-energy factors, such as weather, fiscal policy, and performance of the dollar in international markets are likely to exert a stronger influence on the economic health of the farm sector and rural America.

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## U.S. Economy

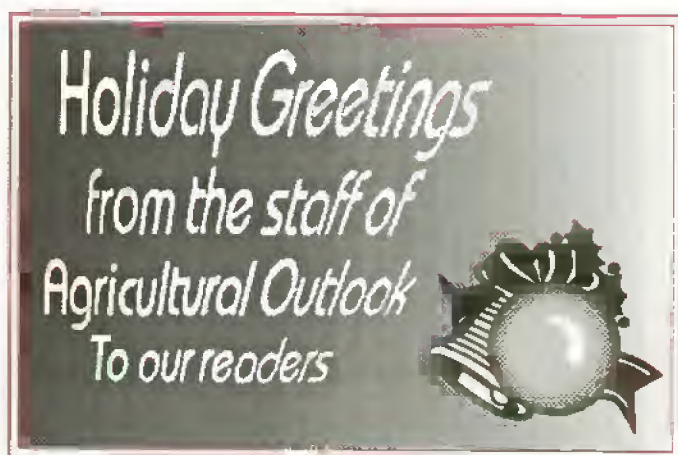


## Economy Still Sending Mixed Signals

The economy continued to be sluggish in the third quarter despite some positive signs. The advance report on third-quarter real gross domestic product (GDP) indicated that the economy was growing moderately. Real GDP grew between 2.5 and 3 percent at an annual rate, led by a nearly 3.5-percent rise in consumer spending. It was the sixth straight quarterly advance, and the first quarter in which GDP growth exceeded the prerecession peak reached in the second quarter of 1990.

The rise in consumer spending was a welcome sign that private spending might be reviving, but other indicators suggested that the third-quarter momentum might not be sustained. Business investment spending was essentially unchanged in the third quarter, reflecting a general unwillingness to increase capital spending without a signal of strong future demand.

Inventories registered the largest increase since the second quarter of 1990, but the gain could be largely an unintended inventory buildup with production cuts to follow in the fourth quarter. Finally,



## U.S. Economy

government purchases rose in the third quarter; a large part of this was a nearly 7-percent rise in federal defense spending, the first increase in five quarters.

### Employment Picture Bleak

Payroll employment was relatively flat through the fall. The number of nonfarm payroll jobs rose by only 17,000 from June through October. Manufacturing and construction jobs continued to slide, while jobs in service industries were up. Health and business services accounted for most of the increase in service-sector jobs.

The unemployment rate continued its slow retreat from the 7.8-percent high reached in June. By October, the rate had slipped to 7.4 percent. Much of the decline was due to a shrinking labor force, which fell by almost 600,000 from June to October.

Along with a decline in the number of manufacturing jobs, industrial production remained sluggish, falling in 3 of the 5 months from June through October. In the 12 months ending in October, production rose by about 0.6 percent, and remains 1.3 percent below the level reached at the expansion peak in July 1990. As a result, industrial capacity use has remained low, averaging less than 79 percent so far this year.

### Consumer Income Flat

Despite the rise in consumer spending in the third quarter, underlying factors suggest the gain may be short-lived. Consumer income, a major determinant of spending, has grown slowly over the last 18 months. Weakness in income is due largely to job losses and slow wage growth. Excluding government transfer payments, income in real terms has yet to exceed its prerecession level, and overall, real disposable income showed no growth from the second to the third quarter of 1992.

In addition to job losses, other factors have contributed to slow income growth. Consumer interest income, which accounts for about 15 percent of total consumer income, has fallen along with interest rates. Interest income peaked in September 1991 and fell about 6 percent through September 1992.

Along with low income growth, consumers continue to reduce their reliance on debt financing by paying off previously incurred debts. For the most part, consumer installment debt has been falling since the fourth quarter of 1990. With virtually no income gains and reluctance to take on new debt, consumer spending does not appear likely to accelerate soon.

### Confidence at Low Levels

Relatively high unemployment and low income growth have dampened consumer confidence, which fell from July through October and is now at about the same level as in the early 1980's. Consumer confidence is believed to be determined largely by economic "fundamentals" like unemployment and inflation.

Current unemployment and inflation, however, are much lower than they were in the early 1980's. The civilian unemployment rate in 1982 averaged 9.7 percent, compared with a 7.6-percent average in the third quarter of 1992. Consumer price inflation averaged 6.2 percent during 1982, compared with only about a 3-percent average rate in the third quarter of this year.

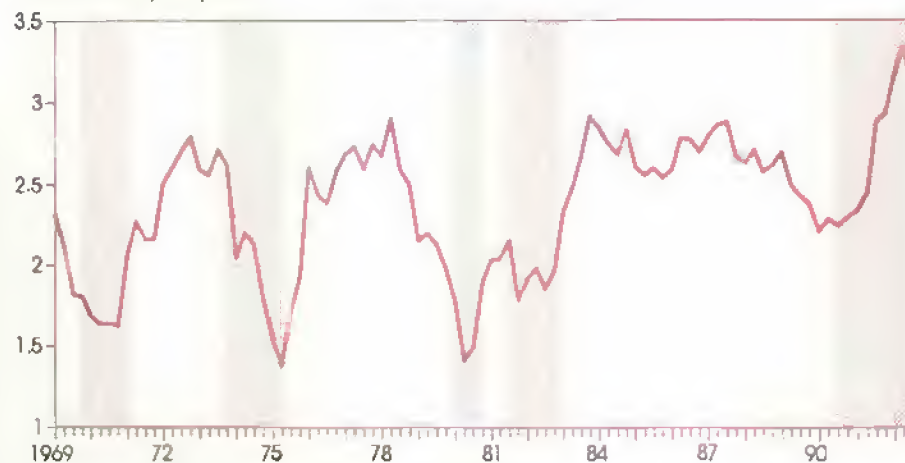
Why the lackluster confidence? First, the election-year debate may have raised overall concerns about the problems facing the economy, and enhanced uncertainty about government policies over the next several years. Confidence jumped in November, but it is too early to judge whether the gain will be sustained.

A second reason confidence has been lower than expected may be found in the composition of unemployment compared with previous recessions. According to the Bureau of Labor Statistics, the ratio of permanent job losses to temporary layoffs associated with the recent recession and sluggish recovery is higher than during other recent downturns.

For example, from mid-1991 through third-quarter 1992, about three jobs were lost permanently for every temporary lay-off. During the 1981-82 recession, permanent job losses were only about double the temporary layoffs. In the 1974-75 recession, the ratio was even lower, at about 1.5 to 1. Abnormally low confidence may reflect the unusually large number of permanent job losses in this recession compared with others. And low confidence is contributing to the reluctance to take on new debt, and until recently has kept spending low.

### Since Mid-1991, About Three Jobs Were Permanently Lost for Every Temporary Layoff

Permanent/temporary ratio

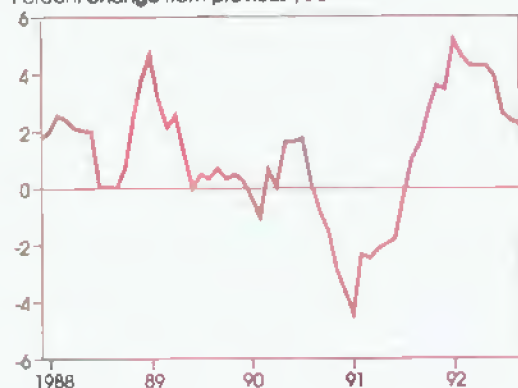


Ratio of permanent job losers to those temporarily laid off.  
Shaded areas show economic downturns.

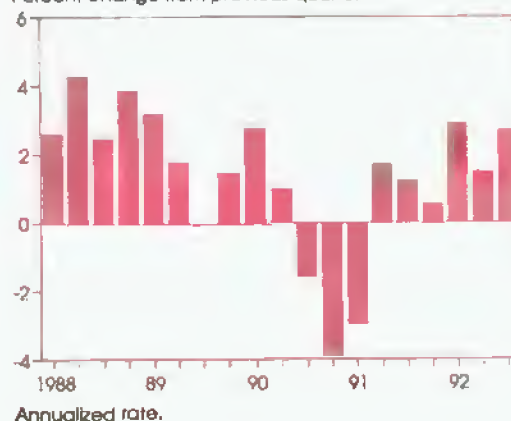


## Few Signs of Pickup in the Economy...

**Composite Index of Leading Indicators**  
Percent change from previous year

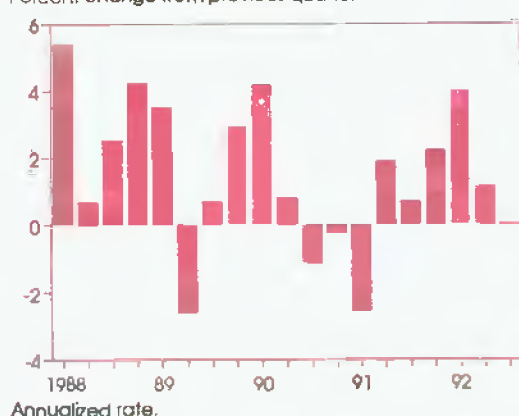


**Real GDP Growth**  
Percent change from previous quarter

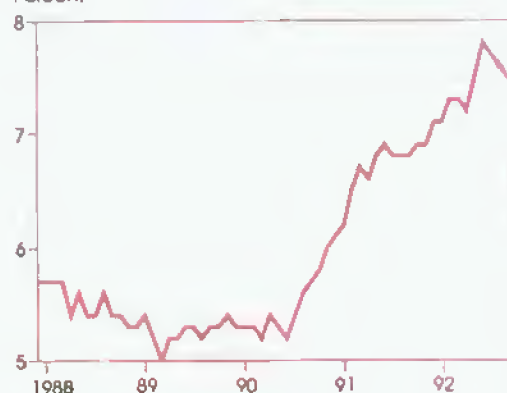


## Income Growth Flat, Unemployment Still High...

**Real Disposable Income**  
Percent change from previous quarter

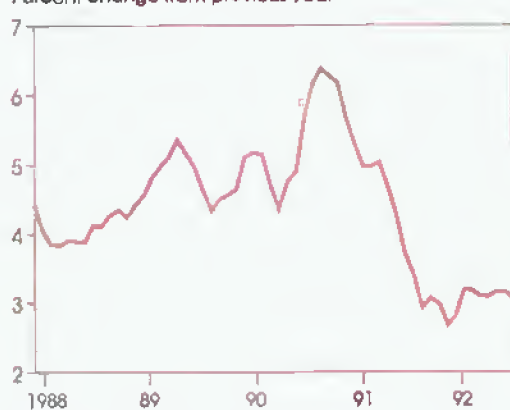


**Civilian Unemployment Rate**  
Percent



## ...but Inflation and Interest Rates Remain Comfortably Low

**Consumer Price Inflation**  
Percent change from previous year



**Short- and Long-Term Interest Rates**  
Percent



Consumer Price Index-all urban consumers.

## U.S. Economy

### ***Inflation & Interest Rates Remain Low***

The protracted period of economic sluggishness with relatively high unemployment and low industrial capacity use continues to hold down inflation. Consumer prices rose less than 3 percent at an annual rate in the third quarter. Even excluding food and energy prices, inflation continues to be modest. And if current inflation trends continue through the remainder of 1992, consumer prices excluding food and energy will post their smallest rise in 20 years.

However, there are some signs that commodity prices are rising, albeit from relatively low levels. Crude goods prices, excluding food and energy, were up 2.9 percent from year-earlier levels in October, although they remained 7 percent below their mid-1990 levels.

Both short- and long-term interest rates fell in the late summer and fall. In the third quarter, rates on 3-month Treasury bills were the lowest in about 30 years, averaging slightly under 3 percent. Short-term rates are nearly 2 percentage points lower than in October 1991; long-term rates are down but by only about 50 basis points (100 basis points equals 1 percentage point). The wide gap between long- and short-term rates reflects several factors, including relatively high foreign interest rates, some expectation of rising inflation over the next few years, and perhaps most importantly, general uncertainty about the fiscal policy outlook for the next few years.

### ***Dollar Slides, Then Rebounds***

U.S. short-term interest rates have been relatively low compared with German short-term rates, which has led to a depreciation of the dollar against the mark. The U.S. discount rate is at 3 percent

versus a discount rate of 8.25 percent in Germany. By contrast, the U.S. rate was higher than the German rate throughout the 1980's and as recently as mid-1989. In September, the dollar fell to a post-World War II low against the mark.

The currency crisis in the European Community actually helped restore some of the dollar's value, particularly against the British pound and the Italian lira, which both fell against the mark. The apparent instability in the European currency market and the Exchange Rate Mechanism (ERM) helped make the dollar more appealing in general.

Further, German interest rates slipped in September, and if they continue to decline, the dollar should appreciate somewhat against the mark. Despite some increase in value, the dollar is likely to remain relatively low vis-a-vis other currencies, helping U.S. exports remain competitive even in the face of slowing demand among major trading partners.

### ***The Outlook: Policy Uncertainty***

Slow growth, low inflation, and low short-term interest rates are likely to continue over the next few months. Private forecasters are projecting further sluggishness in Germany, Japan, and Canada, which will tend to keep U.S. exports from rising quickly in the near term. Currently, Germany and Japan are growing at only a third of their 1990-91 rates. Through the first 8 months of the year, exports to these two countries were down more than 1 percent from last year. Exports to Mexico remain a bright spot, up more than 25 percent during the first 8 months of 1992.

In addition, defense purchases are not likely to maintain their third-quarter advance, and low income growth and the drop in personal savings in the third quarter do not point to robust consumer

spending in the near term. The overall outlook for 1993 depends partially on the programs that Congress and the new President agree upon early in the year. This adds an extra element of uncertainty to the outlook for the next 18 months.

In general, private analysts expect an attempt to stimulate the economy, perhaps through introducing some form of an investment tax credit or by increasing spending on infrastructure. The tax credit would likely affect the economy more quickly than would infrastructure spending, which requires more time to target and fund.

Should a stimulus package be enacted early in 1993, it is likely that growth would accelerate in the second half of 1993, and that interest rates would rise. Inflation would probably not respond as quickly as real growth or interest rates, because the recent recession has generated significant excess capacity.

### ***Agriculture & The Macro Outlook***

The lackluster outlook for domestic personal income growth suggests little expansion in domestic demand for agricultural goods over the next several months. At the same time, macroeconomic considerations point to little change in export demand. Although the value of the dollar is expected to remain relatively low, foreign growth is likely to be slow over the next year, especially in Japan and Canada, two major agricultural export markets.

On the positive side, low interest rates and low inflation associated with the sluggish economy continue to benefit agriculture. The effects of current macroeconomic conditions on the agricultural sector will show up mainly in expenses, not in enhanced demand.

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## Food &amp; Marketing



Snack Food Association

## Fewer Dollars for Food, Larger Share of Income

Female-headed households spent an average of \$89.37 per person per month for food in 1988, based on the U.S. Bureau of Labor Statistics' Continuing Consumer Expenditures Survey. Two-parent households spent \$105.31 per person. Moreover, the food expenditures of female-headed households constituted a larger share of income.

Nationally, food expenditures claim approximately 12 percent of the average household's disposable income. Two-parent households spent about the same as the average household for food in 1988. But female-headed households spent considerably more—over 17 percent of their income went for food.

In general, households with low incomes spend less per person on food, and female-headed households with low income are no exception. In 1988, U.S. households in the lowest 20 percent of the income distribution spent over a third less for food than households in the top 20 percent—\$84.50 per person per month versus \$136.50.

Female-headed households tend to be poorer than two-parent households. Household income per person for female-headed households was less than 60 percent of two-parent household income. Nearly half of the female-headed households in the study had income below the poverty level in 1988, compared with 9 percent of the two-parent households. (Nationally, nearly half of all households classified in poverty in 1986 were headed by women.)

The lower food spending by female-headed households is due mainly to their lower income, and is much less attributable to the fact that they are headed by single women. Another study comparing food expenditures of single and two-parent households separated the single-parent households into poor and nonpoor. Poor families in the study spent less per person for food than nonpoor families. Differences in per-person food expenditures between two-parent households and single-parent households

were clearly attributed to differences in income; nonpoor single-parent households spent more for food per person than all two-parent households.

## "Diary" Tracks Household Spending

This study is based on data from the diary portion of the 1988 Continuing Consumer Expenditures Survey (CCES) conducted by the Bureau of Labor Statistics. The diary survey collects data on small, frequently purchased items such as food and beverages over 2 consecutive weeks. Information on household characteristics is also collected at the end of the second week.

It should be emphasized that the CCES is a survey of expenditures, not of consumption. The data include only the value of items purchased during the 2-week period. Items used out of the household's own inventories are not included in the data, whereas items purchased but not used during that 2-week period are included in the data.

Analysis of the data employed a statistical technique—multivariate regression—which measured the influence of a number of different variables—including income, employment, education, race, and Food Stamp participation—on the level of food expenditures.

## Less Education, Earnings, More Food Assistance

Among the female-headed households, only 22 percent reported another income earner in the household. The absence of a male spouse is a major reason for the low income and high poverty rates among female-headed households.

Yet working female heads of households are also less likely to earn as much as male heads. One reason for lower earnings is that female heads of households

## Food Spending By Female- Headed Households

**H**ouseholds headed by single women constitute a growing proportion of the U.S. population. Between 1970 and 1988, the percentage of urban households with children under age 18 that were headed by single women doubled from 12 to 24 percent. An estimated 60 percent of all children born today will spend some of their childhood in a single-parent household, most often a female-headed household.

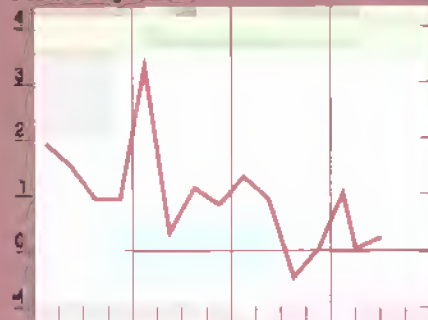
A recent study by the Economic Research Service (ERS) indicates that female-headed households spend fewer dollars, but a greater share of their income on food. The study also demonstrates that income is more important than type of household in determining the level of expenditures. The study covered urban households with at least one child under age 18. It was based on data from 1,140 households, 204 of which were headed by single women and 936 of which had a husband and wife in the home.

## Food &amp; Marketing

## Food &amp; Marketing Indicators

CPI: Total food<sup>o</sup>

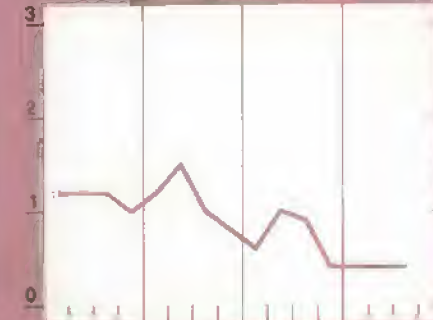
Percent change

CPI: Food at home<sup>o</sup>

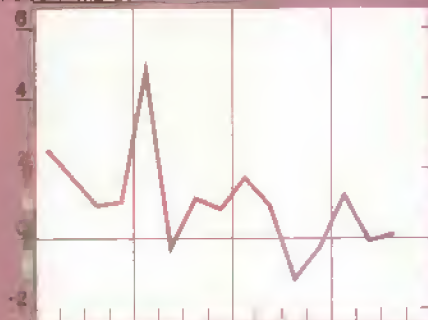
Percent change

CPI: Food away from home<sup>o</sup>

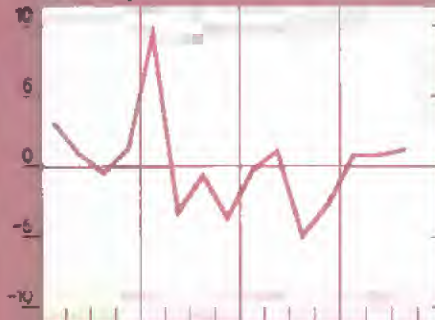
Percent change

Retail cost of food<sup>1</sup>

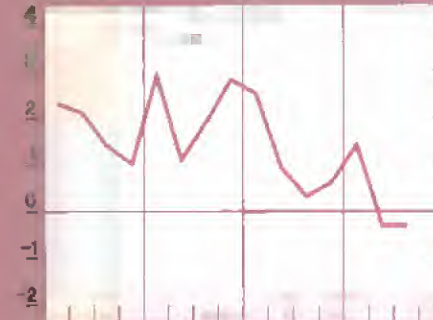
Percent change

Farm value of food<sup>1</sup>

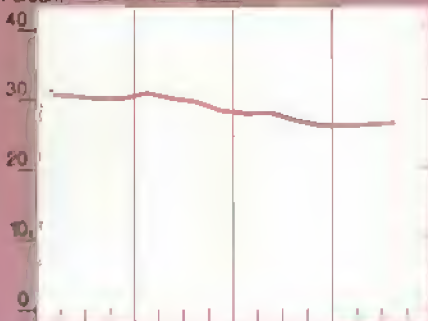
Percent change

Farm-retail spread<sup>1</sup>

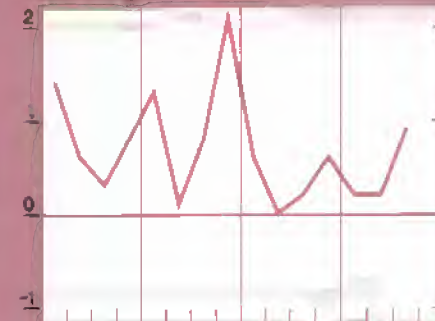
Percent change

Farm share of retail cost<sup>1</sup>

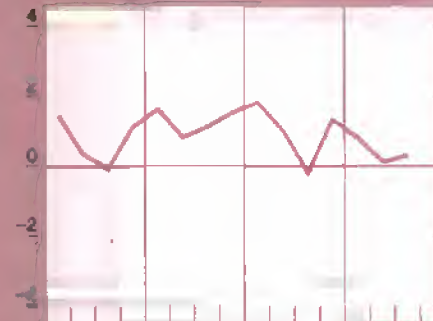
Percent

Food marketing cost index<sup>2</sup>

Percent change

Index of hourly earnings<sup>3,4</sup>

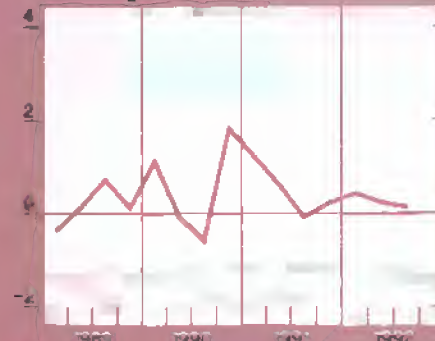
Percent change

Index of packaging prices<sup>4</sup>

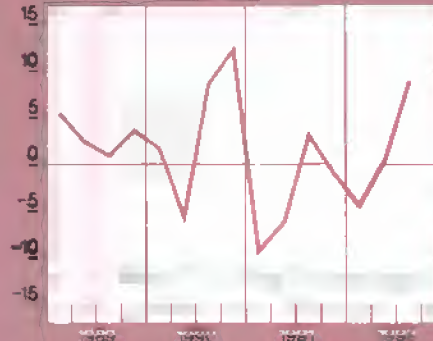
Percent change

Index of rail freight rates<sup>4</sup>

Percent change

Index of energy rates<sup>4</sup>

Percent change

<sup>o</sup>CPI unadjusted. <sup>1</sup>Index based on market basket of farm foods. <sup>2</sup>Index of changes in labor, packaging, transportation, energy, and other marketing costs.<sup>3</sup>In food retailing, wholesaling, and processing. <sup>4</sup>Component of food marketing cost index.

All series expressed as percentage change from preceding quarter, except for "Farm share of retail cost" chart.



## Characteristics of Households in the Study

	Female-headed	Two-parent
Household		
Monthly income	\$1,404.54	\$3,415.06
Monthly income per person	\$515.20	\$888.25
Persons in household	3.03	4.06
Monthly food expenditures	\$253.07	\$411.78
Per-person food expenditure	\$89.37	\$105.31
Food at home	\$59.41	\$67.28
Food away	\$29.95	\$38.03
	Percent	
Other earner in household	22	98
Below poverty level	47	9
Receive food stamps	36	3
Female head/spouse		
Black	25	7
Completed high school	79	88
Completed college	10	21
Employed	74	76
Employed full time	55	46

tend to have less formal education. Among female-headed households, 20 percent of the women had not completed high school while in households with two parents, only 12 percent of female spouses had not completed high school.

Education is strongly related to earnings, and therefore to food expenditures. The study suggests that households in which the female head had at least a high school diploma spent \$16 more per person per month on food than households in which the female head lacked a high school diploma.

Contrary to the hypothesis associating women in female-headed households with low employment, single female heads of households in this study tend to work longer hours and are more likely than their married counterparts to work full time.

The generally lower incomes of female-headed households make these households more likely to be eligible for food assistance. In the study, over a third (36 percent) of female-headed households received food stamps, compared with only 3 percent of male-present households. From a different perspective, whereas

female-headed households represented only 18 percent of the study sample, they made up nearly two-thirds of all households in the study receiving food stamps.

### Does Lower Spending Mean Lower Nutrition?

Greater food expenditures do not necessarily mean better nutrition. In the ERS study, 70 percent of the female heads in each type of household worked. And 86 percent of employed women still do most of the cooking, with 91 percent doing most of the shopping.

One of the primary ways of cutting housework time is to spend less time in the kitchen. That means looking for ways to prepare food quickly. Microwave ovens, convenience foods, take-out food, fast food, and home-delivered food can help speed food preparation.

Although the study traced only expenditures, not consumption, other research suggests that lower income households are more efficient food shoppers, obtaining more nutrients per dollar of food. According to USDA's 1977/78 Nationwide Food Consumption Survey, for example, households with incomes below \$5,000 obtained 1,280 calories, 45 grams of protein, and 470 milligrams of calcium per dollar's worth of food used at home. Households with incomes of \$20,000 and above obtained 1,140 calories, 41 grams of protein, and 440 milligrams of calcium. Whether nutrition-efficient shopping by lower income households continues today, with a large proportion of women entering the labor force, is not certain.

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## Special Articles



Federal Grain Inspection Service

## U.S. Grain Quality—Is Competitiveness At Issue?

**I**n fiercely competitive global grain markets, how important is quality in competitiveness and market share? The grades and standards used to define U.S. grain quality for export were initiated over 75 years ago. Have changes in the grades and standards allowed them to keep pace with advances in technology that demand grain characteristics to accommodate a multitude of new products?

*In this first of a series of articles, AO takes a look at U.S. grain quality, why it matters, and the issues that arise in delivering and communicating quality to foreign buyers. Future articles in the series will look at the effects of grain quality on domestic and international markets for wheat, corn, and soybeans.*

### Grades & Standards Evolved Slowly

Because the end-use quality of a shipment of grain generally is not readily evident, a system of uniform grades and standards was designed to facilitate grain trade. In 1916 Congress authorized the Secretary of Agriculture to establish, enforce, and revise a uniform system of grades and inspection procedures. These standards were to apply exclusively to foreign grain trade. USDA's Federal Grain Inspection Service (FGIS) has the responsibility to set grades and standards, conduct research

to improve the measurement of grain quality, and enhance the grain grading system. FGIS is the only U.S. entity legally authorized to certify grain grades.

U.S. grades and standards have changed slowly over time. The original 1916 legislation was passed 26 years after the introduction of the first bill proposing federal grades and inspections. Current standards have evolved as processing technology altered demand for various grain characteristics, and improvements were made in the level of grain quality and the ability to measure it.

Because changes in grades and standards follow technological innovation, they tend to reflect somewhat older techniques of grain processing, use, and quality assessment capability than currently in practice, and to focus on the physical condition of the grain. But buyers of grain look for other characteristics. Grains and oilseeds are raw products whose value depends on their contribution to a final or intermediate result—such as the amount and quality of the flour, cakes, bread, pasta, meal, or oil that can be produced, or the value as a feed for livestock.

### Grading the Grain

Although many grains and oilseeds can substitute for each other in various products, their distinct characteristics prevent them from being perfect substitutes. Buyers may value various attributes differently, depending on the final product and the production technology being used. The characteristics of interest to end users fall into three broad categories: physical condition, intrinsic characteristics, and uniformity of grains and oilseeds.

**Physical condition** of the grain is described by quantity, cleanliness, soundness, and wholesomeness. Quantity refers to the marginal product of the grain, such as flour milling yield or livestock weight gained per pound of feed. Each of the factors describing the physical condition affects the usable quantity of grain. Cleanliness is related to quantity, because nongrain material (foreign material and dockage) is generally not suited for processing and often must be removed.

**Soundness** of the grain refers to the absence or presence of damaged, shrunken, or broken kernels, which can indicate exposure to insects, heat, or other damaging elements. Shrunken and broken kernels also reduce the marginal product of the grain. Soundness directly affects the storability of grain, which tends to decline as moisture content, foreign material, dockage, damaged kernels, and insects in a shipment increase.

**Grain wholesomeness** reflects the level of substances such as noxious weed seeds or pesticide residues. Handlers, millers, shippers, and importers need to know if the grain has a problem of contamination, if dead or live insects are present, and whether the shipment will meet contract specifications and importers' phytosanitary and quarantine regulations. Current U.S. grades and standards include measures of dead and live insects, insect damage, ergot, smut, and animal filth.



**Intrinsic characteristics** determine the quality and amount of products that can be obtained from the processing, but not the grade. For example, U.S. wheat has a protein content ranging from less than 8 to 18 percent. Most breads require a protein content of 10-14 percent, and other products require wheat with different protein levels. Bakers look for flour with a protein content within the appropriate range for the product. Similarly, the protein and oil content of soybeans determines the amount of oil and the quality of meal obtainable during crushing.

Intrinsic attributes are difficult to measure without processing the grain, so proxy measures are often used. For instance, wheat class was traditionally used as a proxy measure for intrinsic characteristics. But breeding programs that have helped increase U.S. wheat yields, have tended to reduce the correlation between class and these attributes. Therefore other, more specific, criteria such as protein content have been used as proxy measures of some baking characteristics. Some countries, including Canada and Australia, restrict the use of new grain varieties to assure customers their grain has a specific set of quality attributes; each variety of a grain has a set of intrinsic characteristics associated with it.

Only recently has it been possible to measure some intrinsic grain quality characteristics—like protein content—quickly and efficiently. For this reason, intrinsic characteristics have been reported only in recent years, and then as non-grade determining factors. Wheat protein, for example, has been reported (at buyers' request) as a non-grade determining factor only since 1986. Official measures of soybean oil and protein content, the major determinants of soybean value, have become available just this year.

**Uniformity** refers to the consistency of grain within a shipment and between shipments. Newer baking and milling plants can operate at a much higher capacity than older facilities, and for optimal performance require grain of a more consistent quality. The commingling of grain of different varieties can increase processing costs, lowering the end-use value of the grain. Such commingling often occurs as grain moves through the U.S. marketing system.

Uniformity can be a source of disagreement when a shipment is divided and sold to different end users. Although the shipment as a whole meets an agreed standard, the individual sub-lots may not. While customers receiving sub-lots exceeding the standard will be satisfied, those receiving lots that do not meet the agreed standards will not. But because the grain was graded and sold as a shipload, complaints from dissatisfied customers can often go unresolved.

### ***Behind the Quality: Good Genes, Careful Handling***

Many of the desirable characteristics of grain—storability, wholesomeness, and product yield—are determined by growing conditions, production practices, and grain handling. Grain handling services facilitate trade. Gathering small truckloads of

## **On the Report Card: Dockage & Foreign Material**

Among possible sources of complaints and criticisms about grain quality were problems with blending, foreign material, shrunken and broken kernels, and dockage.

**Foreign material** describes all nongrain material in a shipment of most grains (except wheat and sorghum) or oilseeds. For wheat and sorghum, nongrain material is divided into dockage and foreign material—nongrain, non-millable material that cannot be easily removed from the grain.

**Dockage** is nongrain material such as dust, chaff, weed seeds, other grains, and sand, all of which can be readily removed from wheat and sorghum. However, processors such as millers and crushers have little difficulty removing practically all foreign material from wheat, feed grains, and soybeans.

Although dockage is reported on the grade certificate for all inspections, dockage is not a grade-determining factor for wheat. Critics argue that this encourages more dockage in wheat. However, some importers of U.S. grain specify maximum dockage levels in contracts to obtain cleaner grain, and penalize exporters for levels beyond those specified in the contract.

Blending is acknowledged as a cost-effective means of providing grain of a specified quality. Critics claim that any set of grade-determining factor limits will result in shipments containing grain just below the factor limits for foreign material. Thus they argue, grain shipments can contain levels of foreign material or other undesirable substances that barely meet contract specifications. Moreover, critics suggest that current factor limits lead to less clean U.S. grain exports, reducing U.S. competitiveness in international grain markets. Critics cite FGIS statistics on shipments that have shown levels of foreign material and total defects at the grade factor limits. However, for most shipments, foreign material and total defect levels are well below the grade limits.

heterogenous grain into shiplots, and handling the grain in standardized lots, provides most buyers with the quantity and quality of grain needed for their operations. Grain handling practices such as drying, cleaning, aerating, and fumigating are used by elevators to reduce risk of biological degradation and lower the nongrain content of a shipment.

Growing conditions and production practices can affect the amount of chemical residues, insect and other damage, and nongrain material such as weed seed and dirt in a shipment. Nongrain content and damaged grain tend to reduce the quantity or

## Special Articles

product yield of grain in each lot, increase storage costs, lower quality, and increase the risk of losses from insects and mold.

The genetic quality of seed determines the potential quality—intrinsic characteristics—of grain. Characteristics like protein content can be influenced by growing conditions and handling practices, but base quality is genetically determined. Since intrinsic grain properties figure so importantly in the value of the grain, processors are often interested in the variety. In some markets, end users and producers write contracts setting premiums for specific genetic varieties.

### *Do Importers Buy U.S. Quality?*

It is important for grain markets to communicate quality clearly to the end user. The domestic market does not require the official grades and standards, although grades and standards are often used as a basis for premiums and discounts. But grain quality is apparently communicated efficiently between buyers and sellers on the domestic market. Exchanges occur based on criteria and inspection methods agreed to by participants. Grain is acquired using regional purchasing strategies, contract production, and other domestic market outlets. Domestic buyers are able to identify grain well suited for their purposes, and therefore few complaints arise about the quality. Complaints that do occur tend to be handled quickly between the agents involved.

#### Exports Claimed Over Half of U.S. Wheat Use in 1991



On the other hand, communication of grain quality in export markets has been called into question by some. In export markets, contract specifications, official USDA grades and standards, and class are used to communicate the quality of U.S. grain. This grading information, along with an FGIS inspection and grade certificate, is used to assure that purchases meet buyers' needs.

Official complaints from purchasers of U.S. grain shipments are used to draw attention to disputes. Over the last 4 years, complaints have covered between 0.3 and 1.1 percent of the grain exported, although in 1987 they reached a high of 3.7 percent. Some observers have suggested that the decline in U.S. grain exports in the 1980's is partly attributable to dissatisfaction with the quality of U.S. grain.

Why does the domestic market appear to be operating more efficiently—without standards—than the export market which has specified standards? A large part of the reason is the variation in familiarity of foreign processors with U.S. grades and standards. Some foreign buyers are not familiar with U.S. grades and standards. It is not uncommon for a complaint to be based on a misunderstanding arising from differences in U.S. laboratory or sampling practices, or from terminology.

Foreign buyers also have more difficulty identifying the source of the grain received. A domestic processor can often identify where the grain was grown, within a few counties, and knows the attributes of grain from the area. Frequently, domestic buyers send agents to survey grain quality in different regions and make purchases based on the results of these surveys.

Although modern information systems can keep importers of U.S. grain informed of weather and other factors that influence grain quality, blending and other handling practices make it difficult to identify the region where the purchased grain was grown. A buyer can elect to preserve the identity of grain from the field to the export terminal, but this can significantly increase the price of a grain shipment, which in turn would make U.S. grain less competitive.

Another advantage of domestic buyers is ease in communication. In domestic markets, shorter distances make transportation faster, less complicated, and less costly. The shorter time between purchasing and receiving grain speeds communication and provides better feedback. Quickly identifying the existence, source, and nature of problems increases the likelihood of agreement and quick resolution of problems.

With export shipments, however, grain is in transit over longer distances. Increased transit time tends to delay the detection of a problem, and combined with the presence of more intermediaries, increases the difficulty in identifying and resolving a problem.



## Understanding Differences Improves Communication

A first step toward improving communication with foreign grain buyers is to understand the differences that exist between countries' various grain standards and grading practices. Competitors' grain production, marketing, and regulatory systems differ from the U.S. with respect to incentives for maintaining and enhancing grain quality. Differences exist in grain handling (including cleaning, blending, drying and storage); policies and institutions regulating grain quality; and government price and storage policies that affect quality incentives.

For instance, in most competing nations grain is evaluated, dried, and cleaned either on the farm or at the country elevators. Australian wheat grades are determined at the point of first sale, encouraging on-farm cleaning by producers. French and Argentine grain is generally cleaned and dried by operators at the country elevator. Canada uses a different system and cleans at export locations. Also, most competitors do not blend grain to meet contract standards. Many grain exporting countries, including the U.S., offer price policies that explicitly include quality-based premiums and discounts.

Each major U.S. competitor—including France, Canada, Brazil, Argentina, and Australia—has one or more regulations governing grain quality, such as government control of seed variety and development, variety identification mechanisms, and minimal receival standards for grain. In France, Canada, and Australia, marketing by variety is common due to the existence of variety identification mechanisms.

All five major U.S. grain competitors have minimal receival standards. In the U.S., by contrast, producers can deliver any quality of grain to commercial elevators. It is discounted appropriately, but once low-quality grain is in the system, it is difficult to keep it segregated or to prevent blending with higher-quality grain destined for export. In Argentina and Brazil, grains not meeting specified minimums are rejected at the first point of sale. In France, grains not meeting export contract specifications can be rejected by the receiving elevator. In both Canada and Australia, wheat not meeting minimum standards is denoted feed-quality grain and must be marketed as such.

Recognizing the need to understand competitors' grain marketing systems, however, does not imply the need to adopt those standards for U.S. grain. Each set of grain handling and quality assurance practices carries costs and benefits. Before modifying U.S. grades and standards, those costs and benefits need careful examination, to avoid imposing unnecessary costs for little improvement in quality.

## Is There Room for Improvement?

Critics of the current system of grades and standards argue that the system could compromise U.S. competitiveness—by failing to address a number of quality concerns of foreign customers. These critics contend that the current system could even lead ultimately to official complaints lodged over U.S. grain quality. Others, however, point out that the U.S. system of grades and standards is only one of many levels of quality control in the U.S. grain sector, and that changes in grades and standards alone are not likely to ensure quality competitiveness.

Providing better information to customers would reduce complaints, and could increase market share or grain prices. The 1990 Food, Agriculture, Conservation and Trade Act mandated USDA's FGIS to study the benefits and costs of providing cleaner grain to the domestic and export markets. Congress' intent was to understand more fully the economic impacts that would likely occur in response to legislated changes in U.S. grades and standards.

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### Upcoming Reports from USDA's Economic Research Service

The following are December release dates for summaries of the ERS reports listed. Summaries are issued at 3 p.m. Eastern time.

#### December

- 14 *Agricultural Income, & Finance*
- 15 *Sugar & Sweetener*
- 16 *Tobacco Yearbook*
- 18 *Agricultural Outlook*

## Special Articles



## FSU Agriculture: Weathering a Period Of Flux

**P**olicymakers in the 15 newly independent states of the former Soviet Union (FSU) have continued to move the economy more toward a market system in 1992. Restructuring the planned economy involves resource shifts that will temporarily idle some resources, including land and labor. The shift will also eventually include some transfer of property from state and collective control to private ownership. Restructuring is likely to be very difficult, given the distorted resource allocations that resulted from the massive consumer and producer subsidies under central planning.

Reforms will have far-reaching effects on consumers, farmers, processors, and distributors. A year after the breakup of the USSR, two hopeful signs for the FSU are higher grain output following last year's drought, and the emergence of private production and exchange of some agricultural commodities.

### Grain Output Up In Largest Republics

Grain output in the 15 former Soviet republics will amount to just under 183 million tons in 1992, according to USDA's November projection—a nearly 20-percent increase from last year. Higher yields account for the production increase—total grain area is estimated about the same as last year. The forecast

(which includes wheat, coarse grains, and milled rice, on a cleanweight basis, but excludes pulses, buckwheat, and miscellaneous grains) is still below 1990's near-record output (206.6 million metric tons) and the 1986-90 annual average of 186 million.

Almost 90 percent of the FSU's grain is produced by three republics: Russia contributes over half, followed by Ukraine at about 20 percent, and Kazakhstan, with over 15 percent. Most of the rise in 1992 FSU output is due to a dramatic rebound in grain output in Kazakhstan. While grain output is up over 10 percent in Russia and around 5 percent in both Belarus and Ukraine, Kazakhstan's production will be almost triple its 1991 drought-ravaged crop of 11.4 million tons. In the Baltics, however, grain output is projected down sharply this year due to drought.

### State Feed, Livestock Sectors Decline in 1992

State livestock inventories and output continue to decline this year throughout the FSU as the sector faces a continuing fall in feed supplies, rising feed and production costs, and decreased consumer demand for livestock products because of rising prices and falling incomes.

In late August, Russian Agriculture Minister Viktor Khlystun reported that Russia's state hog farms were receiving only 58 percent of feed needs, and its state poultry complexes only 64 percent. Total state mixed-feed production in Russia during January-August 1992 was 25 percent below last year at that time, due largely to much-reduced grain production and procurements in 1991. In addition, Russian production of forage crops is again down this year, with supplies of coarse feeds (hay, haylage, and straw) reportedly down about a third and succulents (silage and greenchop) down by a half as of mid-August.

Potatoes—another major feed crop—are also expected down from last year. On the other hand, state output of oilmeal and cake as of mid-year was up slightly from the same time in 1991. Overall, as of early September, Russia's supply of fodder per head of cattle was reportedly 23 percent below last year.

Contraction in the Russian state livestock sector from January to August 1992 mirrored the FSU's overall contractions. On September 1, Russian Federation state inventories of cattle, swine, and poultry were down 6, 13, and 23 percent from the same time last year. Declining inventories are resulting from reduced breeding, increasing death losses, and higher slaughter.

Russian state production of cattle and poultry meat (live-weight basis) for the 8-month period fell by 22 percent, milk production declined 17 percent, and output of eggs decreased by 12 percent. In Ukraine, state-sector data for January-June 1992 show meat output down 22 percent, milk production down 23 percent, and egg output down 19 percent from the same period last year.



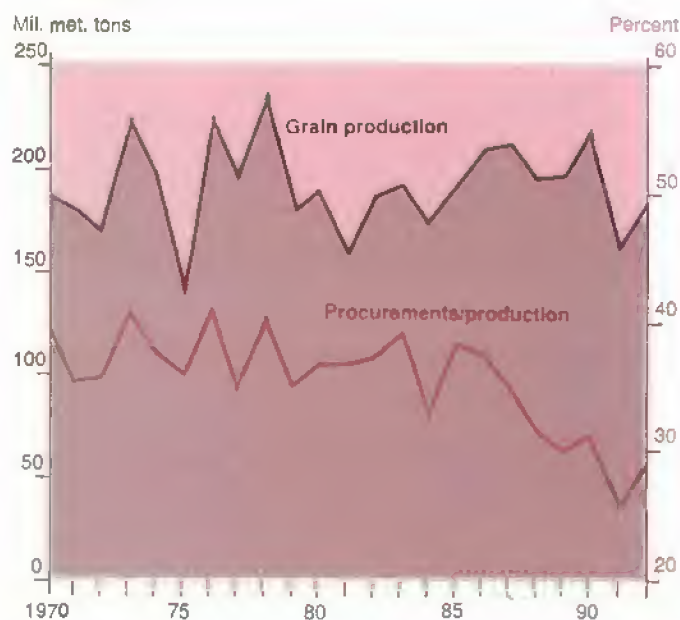
Falling output is attributable mainly to declining output per animal. In Russia, state sector yields per animal continued to fall, with milk yields per cow down 12 percent and eggs per hen down 4 percent. The declines represent not only less feed per head, but poorer quality rations. The state previously forced farmers to sell grain and oilseeds at set prices to state agencies. Farmers complained that they were later forced to buy poor-quality feeds back at relatively high prices.

Farmers are now feeding more grain directly, or bartering surplus grains to other farms, which are also feeding the grain with little processing. Rations have become even more unbalanced and lacking in important feed additives than those produced by the state mixed-feed industry.

In the Baltics, the livestock sector has been especially hard hit. Insufficient production of feed grains was compounded by a protracted drought this year, as well as interruptions in feed imports. The result is significantly increased feed supply problems, which has led to the increased export of live animals and could still lead to distress slaughter.

On the brighter side, growth in animal husbandry by an emerging private sector is partially offsetting the poor performance of the state livestock sector. As of July 1, private inventories of cattle and swine in Russia grew by 7 and 5 percent from a year ago, according to Rosgoskomstat. Poultry inventories in the private sector likely grew even more. Rising private inventories mean the net decrease in Russia's total cattle inventories is only 3 percent from last year, and the decline in total hog inventories is 9 percent.

**State Procurement Share of Grain Production Has Trended Downward**



1992 forecast.

Sources: USDA and Narkhoz SSSR.

## State Meat Procurements Fall

State meat procurements in the FSU republics showed a more dramatic decline than output levels. However, the drop in live-stock products delivered to the state marketing sector does not necessarily translate into an equal decline in overall supplies. More and more farms are selling meat and dairy products directly, bypassing state procurement—through the traditional collective farm markets, new commodity markets, and by barter to other enterprises.

Decreased consumption of livestock products, due to falling real incomes and higher prices, is reflected in a growing surplus of meat stocks in the state wholesale trade network, despite the lower state procurements. As of July 1, overall state meat stocks in Russia, for example, were close to 300,000 tons, or 50 percent more than last year on this date. The butter stock surplus was reported at about 100,000 tons.

## Incentives To Raise State Grain Supplies

By the time harvest began this year, farmers were unusually reluctant to sell grain to the state. Several factors were at work, including low state procurement prices, expectations that grain procurement and input prices would rise, failure by the state to deliver on payments owed from past years, and farmers' preference for goods rather than rubles as payment for grain.

Most milling and mixed-feed facilities receive their grain from state grain supplies. The state procured about 75 million tons of grain each year in 1986 and 1987, accounting for about 40 percent of production. State procurements amounted to only 32 percent of the near-record harvest of 206.6 million tons in 1990, and only about 25 percent of 1991's drought-reduced crop of just over 150 million tons.

Faced with a near boycott of grain sales to the state, republics introduced a combination of measures to increase farm grain sales to the state. Measures during the 1992 harvest, similar to past years, included increased procurement prices (as farms had anticipated), special bonuses for above-plan sales, restrictions on sales of grain to commodity exchanges and nonlocal areas until state sales plans were met, threats to cut off state input subsidies and withdraw credits unless sales to the state were made, and possible confiscation of grain and fines for farms selling grain through other channels before meeting state quotas. In addition to these measures, a lack of adequate on-farm grain storage facilities is likely to encourage farms to sell additional grain eventually to the state.

Russia raised its procurement prices again substantially in August as part of its effort to increase grain sales to the state. Prices for ordinary or "third-class" wheat were raised by 20 percent, from 10,000 rubles per ton to 12,000 rubles.

## Special Articles

## Russia's Farm Structure

There are roughly 12,000 each of state and collective farms in the Russian Federation. In principle, state farms are state enterprises, and collective farms are cooperatives in which all assets except land are owned by members. Differences between the two types of farms all but disappeared in the 1970's and 1980's, as their procedures for paying workers and for obtaining access to state credits became almost identical.

*Collective farms* in Russia have on average 6,600 hectares, about 4,000 of it cropped land. The average collective farm has 312 full-time-equivalent workers, for an average of 21 hectares of agricultural land per worker (including meadows and pasture, as well as arable land).

The *state farms* average about 9,000 hectares. Of this area, about half is sown to crops. With approximately 420 full-time-equivalent workers per state farm, the land/labor ratio amounts to about the same as on the collectives. Although total agricultural area is larger than on collective farms, much of the difference is grazing land, pasture, forest, or wasteland. For example, the grain area in the state sector exceeds that in the collective sector by only 14 percent. While state and collective farms tend to be diversified enterprises, producing both crop and livestock products, diversification is more evident in the collective farm sector than in the state sector.

A *private sector* existed even under communist rule, but prior to 1991, it was limited primarily to household plots of farm employees and smaller gardens of city dwellers. The most significant in relative contribution to total output were the household plots of farm workers. These averaged a scant 0.5 hectare (about 1.2 acres), although size varied considerably according to local conditions.

This traditional private sector held about 3 percent of the arable land, most of which was planted to potatoes, vegetables, and fruits. Small household plots held 17 percent of cattle, 19 percent of pigs, 25 percent of sheep, and 83 percent of goats. Households produced little of their own feed and each depended on the large farm for supplies, as well as tractor services, transportation to market, and in many cases, marketing.

Since 1991 a new private sector has been emerging. As of October 1992, over 150,000 private farms were registered, and these new independent private farms (*fermy*) hold about 3 percent of Russian agricultural land.

were set at between 15,000 and 20,000 rubles per ton. One estimate places the cost of procurement to the Russian government at the new prices at about 400 billion rubles.

Although total 1992 FSU-15 state grain procurements have already surpassed the 1991 level of nearly 41 million tons by over 15 million, they will not reach the 1990 level of 68 million tons in state purchases.

In Russia, state grain procurements as of early November had already surpassed last year's roughly 22 million tons. But they are unlikely to reach the republic's target of 29 million. Ukraine had hoped for at least 14.5 million tons out of a planned 17 million for this year, compared with 1991 purchases of 11.3 million tons. But Kazakhstan will far exceed 1991 procurements of only 3.2 million tons, having already procured about 15 million tons as of the end of October.

The effect of higher procurement prices on the retail price of bread is a major concern. Prices of higher quality white bread could easily double, reaching 40 rubles per loaf or more. According to the head of the former Russian Committee for Bread and Bakery Products, 1992 state subsidies to stabilize retail prices of bread could reach about 50 billion rubles.

### Food Grain Consumption Up, Meat Falls Behind

FSU food consumption patterns in 1992 continue to mirror the marked changes that began after 1989, when per capita consumption of meat reached its peak. Up to 1989, food consumption patterns reflected policies aimed at raising consumption of livestock products while reducing consumption of grain products.

Around 1990, consumption patterns reversed, with food grain consumption picking up again. The shift from meat to grains accelerated in 1992, as price liberalization resulted in steep increases in meat prices, and deep decreases in consumer subsidies. Meat prices have risen from about 3.5 rubles per kilogram in 1986 to about 110 rubles per kilogram in 1992. As a consequence, official per capita meat consumption in Russia has fallen to around 60 kilogram in 1992 from 75 kilograms in 1989. This has brought per capita consumption closer to levels of other countries with similar incomes. And with meat consumption falling, human consumption of food grain products has increased—more than the 3-5 percent rise that country data suggest. The reason is that previously, large amounts of bread had been fed to livestock, but was reported in the per capita consumption estimates.

While overall food use of grain has increased, feed use of grain has fallen sharply, because of reduced grain availability following the low production and procurement levels in 1991. Tight supplies, which imports did not entirely alleviate, caused inventory drawdowns, which have in turn reduced feed demand further. Compounding difficulties has been the dramatic rise in input prices for the livestock sector, and high retail prices for

(In early August, \$1 equaled about 150 rubles; by November, \$1 equaled almost 400 rubles.) First-class durum wheat was set at 24,000 rubles per ton, and first- and second-class hard wheats



meat, which have produced additional hardships for livestock producers.

In August, Russian President Boris Yeltsin created the Federal Grain Fund, reportedly to ensure grain supplies to areas not able to provide for themselves, such as Moscow, St. Petersburg, the northern regions, and military centers. The Fund will obtain grain from state grain procurements in surplus producing regions, from foreign imports, and through purchases from other FSU republics, especially Kazakhstan. How this new organization will differ from the former All-Union Fund remains to be seen. In 1992, the fund is expected to distribute about 20.5 million tons of grain to needy areas.

### **FSU Grain Imports Likely To Decline**

Total 1992/93 FSU-15 grain imports are estimated down from last year. As of November 10, USDA projects grain imports by the FSU for 1992/93 (July-June) of 31 million tons, down from almost 42 million in 1991-92. Wheat will make up 16.5 million tons, coarse grains 13.8 million, and rice 800,000 tons. The decline in grain imports in 1992/93 is due to increased domestic production and procurement, lower feed consumption, and difficulties with debt servicing primarily because of hard currency earnings constraints.

During the first 8 months of 1992, the Russian Federation imported close to 17 million tons of grain—45 percent greater than during the same time last year. Imports for calendar 1992 are expected to total nearly 25 million tons, close to calendar

1991 import estimates (including inter-republic trade). Russia has reportedly contracted for imports of 3 million tons from Kazakhstan, and is currently negotiating for additional purchases.

Official statements concerning Russian Federation imports for 1992/93 indicate lower expected volumes, reflecting increased production and the intent to restructure imports (and implicitly feed consumption) away from grain. On August 18, Russia's Agriculture Minister Khlystun indicated that Russia will import 10 million tons of grain. On September 10, Vice President Aleksandr Rutskoi was quoted as saying that Russia will need to import 12-15 million tons of grain by the next harvest. In a speech the following day, President Yeltsin stated that Russia would cut its grain imports to 7-10 million tons in 1993.

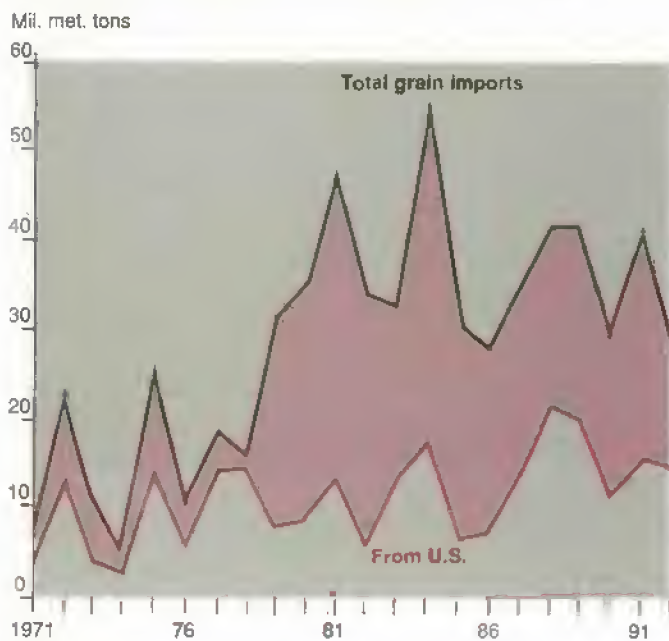
Kazakhstan appears to be the only country of the FSU that will export a substantial amount of grain this year. Contracts reportedly have been signed with Russia, Belarus, and several of the Central Asian nations. The Kazakhs also hope to sell grain on the world market for hard currency. On the other hand, several FSU countries that suffered from adverse weather are looking to the West for grain imports and humanitarian aid. For example, the Baltic countries, where production is expected down by almost half from an average of 5-6 million tons a year, have appealed to the EC and the U.S. for assistance.

### **U.S. Food Aid Initiatives Announced**

During fiscal 1992, the former USSR imported approximately 15-16 million tons of grain from the U.S., including more than 8 million tons of wheat and 6 million tons of corn. In fiscal 1991, over 2 million tons of U.S. wheat and 9 million tons of U.S. corn was exported to the FSU. Most of the grain purchased since 1991 has been with GSM-102 credit, which currently guarantees repayment of 100 percent of the principal, and interest at the prevailing rate for 52-week Treasury bills.

To date, fiscal 1991 and 1992 GSM-102 allocations to Russia and the other republics total close to \$6 billion. Included in this total is part of a \$1.15-billion package containing GSM credit guarantees and food aid announced for Russia on September 14. The first allocation of this GSM credit package made during fiscal 1992, totaling \$100 million, was distributed among wheat, corn, and protein meal. On October 9, USDA announced the second installment of Russia's credit guarantees, which totaled \$525 million. This allocation will be used for the purchase of \$235 million of feed grains, \$190 million of wheat, \$40 million of soybean meal, \$30 million of pork, and \$30 million of poultry. This is the first time that pork and poultry sales can be made with GSM-102 credit. In addition, the first allocation of food aid to Russia was announced by USDA on October 9.

Large Share of FSU Grain Imports Comes from U.S.



1992 forecast.

Marketing year data (July-June) for total grain imports;  
fiscal year data for imports from U.S.

## Special Articles

The allocation provides \$134 million for purchases of rice, butter, pork, corn, baby food, wheat and wheat products, whole dry milk, chicken, and peanuts.

Ukraine is the only other republic directly to receive GSM-102 credit. During fiscal 1992, the U.S. provided \$110 million in credit guarantees to Ukraine. On October 19, USDA announced the allocation of \$200 million in GSM-102 credit to finance the sale of U.S. agricultural products to Ukraine during fiscal 1993. These credits cover the sale of \$138 million of feed grains and \$39 million of wheat.

Other FSU republics have received U.S. assistance. For example, on August 25, USDA announced a \$145-million food aid package which included allocations to nine republics: Armenia, Belarus, Georgia, Kyrgyzstan, Moldova, Tajikistan, Estonia, Lithuania, and Latvia. Funding for this assistance is available from fiscal 1992 Title I of P.L.480 and Food for Progress budgets, and food purchased is expected to be shipped during calendar 1992.

On September 2 the U.S. announced the targeting of 5.5 million tons of wheat for export to the FSU under the Export Enhancement Program (EEP) during the period July 1, 1992 to June 30, 1993. As of early November, over 2 million tons of wheat sales was registered.

USDA also announced EEP invitations for wheat purchases involving countertrade, allowing U.S. wheat exporters to sell wheat to FSU nations via third parties outside the FSU. These third parties are able to barter with FSU nations, purchasing raw materials and goods and using the hard currency to buy wheat for the trading partner.

On August 25, the first allocation of 200,000 tons was announced, of which over 150,000 tons of wheat was sold. This initial invitation was closed and a new invitation announced on September 4 for 500,000 tons of wheat. As of November 4, 332,000 tons of wheat had been sold. Other commodities covered by EEP invitations which permit countertrade include wheat flour, barley, rice, vegetable oil, and frozen pork. However, as of early November, no sales have been registered for these commodities under this special EEP invitation.

Fiscal 1992 wheat EEP sales to the FSU reached 8.4 million tons, with total bonuses to exporters of \$350 million, for an average EEP bonus of \$41 per ton. Fiscal 1991 EEP wheat sales totaled 3.2 million tons, at an average bonus of \$45. Since fiscal 1987, when EEP sales were first registered, total EEP wheat sales to the FSU come to 33 million tons, with an average bonus of \$34.

The fiscal 1993 outlook for U.S. agricultural exports to the FSU is mixed. U.S. grain exports to the FSU could fall—USDA is projecting lower overall FSU grain imports for 1992/93. Total FSU imports will be affected by domestic production and consumption, both of which are being acutely affected by the current economic reform programs. Additionally, the availability of credit guarantees will largely determine import source, quantity, and mix in the short run. While total fiscal 1993 U.S. agricultural sales to the FSU could be lower than in fiscal 1992, GSM credit, P.L.480, and EEP will all help maintain U.S. market share in the region.

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AO

### December Releases from USDA's Agricultural Statistics Board

The following reports are issued at 3 p.m. Eastern time on the dates shown.

#### December

- 3 Egg Products
- 4 Dairy Products
- 7 Celery (1 p.m. report)  
Poultry Slaughter
- 10 Cotton Ginnings  
Crop Production
- 11 Farm Labor
- 14 Milk Production  
Turkey Hatchery
- 15 Potato Stocks  
Vegetables
- 18 Cattle on Feed
- 21 Catfish
- 22 Cold Storage  
Eggs, Chickens & Turkeys
- 23 Cotton Ginnings  
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# A



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# Statistical Indicators

## Summary Data

Table 1.—Key Statistical Indicators of the Food & Fiber Sector

	1991	1992					1993		
	Annual	I	II	III	IV F	Annual F	I F	II F	Annual F
Prices received by farmers (1977=100)	146	141	141	138	138	140	—	—	—
Livestock & products	161	154	156	159	159	157	—	—	—
Crops	130	127	124	117	117	121	—	—	—
Prices paid by farmers, (1977=100)									
Production items	173	171	174	175	174	174	—	—	—
Commodities & services, interest, taxes, & wages	189	188	189	189	189	189	—	—	—
Cash receipts (\$ bil.) 1/	168	166	168	—	—	—	—	—	—
Livestock (\$ bil.)	86.3	85	87	—	—	—	—	—	—
Crops (\$ bil.)	81.8	81	81	—	—	—	—	—	—
Market basket (1982-84=100)									
Retail cost	137	138	138	138	—	—	—	—	—
Farm value	106	102	103	104	—	—	—	—	—
Spread	154	158	157	156	—	—	—	—	—
Farm value/retail cost (%)	27	26	25	26	—	—	—	—	—
Retail prices (1982-84=100)									
Food	137	138	138	138	139	138	—	—	—
At home	136	137	137	137	137	137	—	—	—
Away from home	138	140	140	141	142	141	—	—	—
Agricultural exports (\$ bil.) 2/	37.5	11.3	10.1	8.8	11.3	41.5	—	—	—
Agricultural imports (\$ bil.) 2/	22.6	6.1	6.2	5.4	5.8	23.5	—	—	—
Commercial production									
Red meat (mil. lb.)	39,402	10,086	9,915	10,405	10,492	40,898	10,249	10,286	41,832
Poultry (mil. lb.)	24,885	6,309	6,624	6,815	6,570	26,318	6,515	6,880	27,090
Eggs (mil. doz.)	5,758	1,458	1,451	1,463	1,500	5,871	1,480	1,440	5,855
Milk (bil. lb.)	148.5	38.0	39.1	37.7	36.9	151.7	38.2	39.4	151.9
Consumption, per capita									
Red meat and poultry (lb.)	203.2	50.7	51.4	53.0	53.8	208.9	51.9	52.5	212.3
Corn beginning stocks (mil. bu.) 3/	—	1,521.2	6,541.1	4,561.0	2,738.6	—	1,100.5	—	—
Corn use (mil. bu.) 3/	7,760.7	2,461.1	1,984.5	1,827.8	1,641.4	7,914.9	—	—	8,285.0
Prices 4/									
Choice steers—Neb. Direct (\$/cwt)	74.28	75.77	75.94	73.88	72-76	74-76	70-76	72-78	71-77
Barrows & gilts—IA, So. MN (\$/cwt)	49.69	39.55	45.9	44.39	39-43	42-44	37-43	40-48	39-45
Broilers—12-city (cts./lb.)	52.0	50.2	52.3	54.5	50-54	51-53	49-55	50-56	49-55
Eggs—NY gr. A large (cts./doz.)	77.5	63.8	62.0	64.5	68-72	64-66	63-69	65-71	69-75
Milk—all at plant (\$/cwt)	12.24	12.97	12.87	13.47	13.35-13.75	13.15-13.30	12.25-13.25	11.25-12.25	11.80-12.80
Wheat—KC HRW ordinary (\$/bu.)	3.18	4.50	3.94	3.45	—	—	—	—	—
Corn—Chicago (\$/bu.)	2.47	2.66	2.59	2.26	—	—	—	—	—
Soybeans—Chicago (\$/bu.)	5.89	5.75	5.93	5.49	—	—	—	—	—
Cotton—Avg. spot 41-34 (cts./lb.)	69.7	51.4	56.4	57.3	—	—	—	—	—
	1984	1985	1986	1987	1988	1989	1990	1991	1992 F
Gross cash income (\$ bil.)	156.1	157.9	152.8	165.2	172.7	180.2	186.4	183	180-185
Gross cash expenses (\$ bil.)	118.7	110.7	105.0	109.4	114.6	121.2	125.2	125	125-129
Net cash income (\$ bil.)	37.4	47.1	47.8	55.8	58.1	58.9	61.3	58	54-57
Net farm income (\$ bil.)	26.1	28.8	31.0	39.7	41.1	49.9	51.0	45	42-47
Farm real estate values 5/									
Nominal (\$ per acre)	801	713	640	599	632	661	668	681	685
Real (1982 \$)	769	657	568	518	530	533	517	506	491

1/ Quarterly data seasonally adjusted at annual rates. 2/ Annual data based on Oct.-Sept. fiscal years ending with year indicated. 3/ Sept.-Nov. first quarter; Dec.-Feb. second quarter; Mar.-May third quarter; Jun.-Aug. fourth quarter; Sept.-Aug. annual. Use includes exports & domestic disappearance. 4/ Simple averages, Jan.-Dec. 5/ 1990-92 values as of January 1. 1986-89 values as of February 1. 1984-85 values as of April 1. F = forecast, — = not available.



## U.S. &amp; Foreign Economic Data

Table 2.—U.S. Gross Domestic Product &amp; Related Data

	Annual			1991		1992		
	1989	1990	1991	III	IV	I	II R	III P
\$ billion (quarterly data seasonally adjusted at annual rates)								
Gross domestic product	5,250.8	5,522.2	5,677.5	5,713.1	5,753.3	5,840.2	5,902.2	5,967.1
Gross national product	5,266.8	5,542.9	5,694.9	5,726.4	5,764.1	5,859.8	5,909.3	—
Personal consumption expenditures	3,523.1	3,748.4	3,887.7	3,914.2	3,942.9	4,022.8	4,057.1	4,105.0
Durable goods	459.4	464.3	446.1	453.0	450.4	469.4	470.6	481.6
Nondurable goods	1,149.5	1,224.5	1,251.5	1,255.3	1,251.4	1,274.1	1,277.5	1,290.1
Clothing & shoes	200.4	208.9	209.0	212.0	206.8	216.5	217.4	224.7
Food & beverages	565.1	601.4	617.7	617.9	620.0	627.9	623.2	623.0
Services	1,914.2	2,059.7	2,190.1	2,205.9	2,241.1	2,279.3	2,309.0	2,333.3
Gross private domestic investment	832.3	799.5	721.1	732.8	736.1	722.4	773.2	776.9
Fixed investment	798.9	793.2	731.3	732.6	726.9	738.2	765.1	761.5
Change in business inventories	33.3	6.3	-10.2	0.2	9.2	-15.8	8.1	15.4
Net exports of goods & services	-79.7	-68.9	-21.8	-27.1	-16.0	-8.1	-37.1	-37.3
Government purchases of goods & services	975.2	1,043.2	1,090.5	1,093.3	1,090.3	1,103.1	1,109.1	1,122.5
1987 \$ billion (quarterly data seasonally adjusted at annual rates)								
Gross domestic product	4,838.0	4,877.5	4,821.0	4,831.8	4,838.5	4,873.7	4,892.4	4,924.5
Gross national product	4,852.7	4,895.9	4,836.4	4,843.7	4,848.2	4,890.7	4,899.1	—
Personal consumption expenditures	3,223.3	3,260.4	3,240.8	3,251.2	3,249.0	3,289.3	3,288.5	3,316.1
Durable goods	440.7	439.3	414.7	419.4	416.1	432.3	430.0	439.0
Nondurable goods	1,051.6	1,056.5	1,042.4	1,044.8	1,035.6	1,049.6	1,045.6	1,050.0
Clothing & shoes	187.8	185.9	181.3	183.7	177.5	184.1	184.4	191.1
Food & beverages	515.0	520.8	515.8	515.0	515.3	518.9	513.5	510.8
Services	1,731.0	1,764.6	1,783.7	1,787.0	1,797.4	1,807.3	1,812.9	1,827.0
Gross private domestic investment	784.0	739.1	661.1	672.0	676.9	668.9	713.8	721.2
Fixed investment	754.2	732.9	670.4	671.4	669.3	681.4	705.9	706.4
Change in business inventories	29.8	6.2	-9.3	0.6	7.5	-12.6	7.8	14.7
Net exports of goods & services	-73.7	-51.8	-21.8	-31.6	-20.5	-21.5	-43.9	-51.5
Government purchases of goods & services	904.4	929.9	941.0	940.2	933.1	937.0	934.2	938.8
GDP implicit price deflator (% change)	4.4	4.3	4.1	2.4	2.4	3.1	2.7	2.0
Disposable personal income (\$ bil.)	3,787.0	4,042.9	4,209.6	4,227.6	4,284.9	4,360.9	4,411.8	4,427.3
Disposable per. income (1987 \$ bil.)	3,464.9	3,516.5	3,509.0	3,511.5	3,530.8	3,565.7	3,576.0	3,576.4
Per capita disposable per. income (\$)	15,307	16,174	16,658	16,706	16,885	17,143	17,297	17,308
Per capita dis. per. income (1987 \$)	14,005	14,068	13,886	13,878	13,913	14,017	14,021	13,982
U.S. population, total, incl. military abroad (mil.) *	247.3	249.9	252.7	252.9	253.7	254.3	254.9	255.7
Civilian population (mil.) *	245.1	247.8	250.6	250.8	251.6	252.3	253.0	253.7
	Annual			1991		1992		
	1989	1990	1991	Sept	June	July	Aug	Sept
Monthly data seasonally adjusted								
Industrial production (1987=100)	108.1	109.2	107.1	108.4	108.5	109.3	108.9	108.6
Leading economic indicators (1982=100)	144.4	143.8	143.6	145.0	148.8	149.0	148.6	148.2
Civilian employment (mil. persons)	117.3	117.9	116.9	117.1	117.6	117.8	117.7	117.7
Civilian unemployment rate (%)	5.2	5.4	6.6	6.7	7.7	7.6	7.5	7.4
Personal income (\$ bil. annual rate)	4,380.3	4,664.2	4,828.3	4,863.4	5,038.5	5,049.1	5,041.3	5,077.5
Money stock-M2 (daily avg.) (\$ bil.) 1/	3,227.3	3,339.0	3,439.9	3,411.9	3,463.4	3,460.7	3,469.4	3,479.0
Three-month Treasury bill rate (%)	8.12	7.51	5.42	5.25	3.70	3.28	3.14	2.97
AAA corporate bond yield (Moody's) (%)	9.28	9.32	8.77	8.61	8.22	8.07	7.95	7.92
Housing starts (1,000) 2/	1,376	1,193	1,014	1,020	1,147	1,100	1,239	1,256
Auto sales at retail, total (mil.)	9.9	9.5	8.4	8.5	8.9	8.3	8.0	8.3
Business inventory/sales ratio	1.53	1.53	1.55	1.53	1.50	1.49	1.52	—
Sales of all retail stores (\$ bil.)	145.1	150.6	151.8	154.3	159.0	160.8	160.7	161.1
Nondurable goods stores (\$ bil.)	90.8	96.0	98.0	99.1	101.3	102.2	102.5	102.4
Food stores (\$ bil.)	28.8	30.2	30.9	31.8	32.2	32.3	32.6	32.1
Eating & drinking places (\$ bil.)	14.5	15.2	15.8	16.0	15.8	15.9	16.0	16.0
Apparel & accessory stores (\$ bil.)	7.6	7.9	8.0	8.0	8.4	8.7	8.6	8.7

1/ Annual data as of December of the year listed. 2/ Private, including farm. R = revised. P = preliminary. -- = not available.

Note: \* Population estimates based on 1990 census.

Information contact: Ann Duncan (202) 219-0313.

Table 3.—Foreign Economic Growth, Inflation, &amp; Exports

	1983	1984	1985	1986	1987	1988	1989	1990	1991 E	1992 F	1993 F	Average 1981-90
Annual percent change												
World, less U.S.												
Real GDP	2.4	-3.6	3.4	3.0	3.5	4.4	3.5	3.1	1.0	1.5	2.9	3.0
GDP deflator	8.3	7.8	8.0	7.5	9.0	10.6	10.8	24.8	11.2	42.6	38.8	10.5
Real exports	2.2	9.5	3.9	2.1	5.9	7.8	8.7	6.4	3.8	3.8	4.3	5.3
Developed less U.S.												
Real GDP	2.1	3.2	3.4	2.7	3.2	4.5	3.6	3.5	1.8	1.4	2.4	2.9
GDP deflator	6.2	4.8	3.8	3.9	2.8	3.8	4.2	4.6	4.1	4.0	3.5	5.0
Real exports	2.7	10.6	5.4	-0.1	4.1	7.3	9.7	7.8	4.8	4.1	3.8	5.7
Eastern Europe & C.I.S.												
Real GDP	3.6	4.0	2.2	3.6	2.6	3.8	1.5	-3.2	-12.2	-11.3	-1.1	2.2
GDP deflator 1/	4.2	5.0	6.4	8.1	12.8	35.3	41.3	192.7	38.3	200.0	89.7	32.2
Real exports	4.6	6.2	-4.0	9.1	7.6	8.5	-5.3	-8.9	-22.1	-9.1	0.8	2.6
Developing												
Real GDP	3.1	4.7	4.0	3.9	4.5	4.4	3.6	3.5	2.5	4.6	5.3	3.7
GDP deflator	38.7	37.3	36.4	25.6	33.1	26.4	19.1	16.9	15.4	10.6	12.5	28.9
Real exports	0.4	7.2	1.7	7.5	11.1	9.4	9.0	5.5	6.2	5.3	6.2	4.9
Asia												
Real GDP	8.2	7.9	5.9	7.2	8.8	9.1	5.5	5.7	5.8	5.5	5.7	7.0
GDP deflator	6.3	7.5	5.9	4.4	7.8	8.2	6.1	8.1	7.2	7.2	7.3	6.7
Real exports	6.4	11.3	2.9	19.0	15.8	14.9	8.2	7.3	9.2	9.0	11.0	9.2
Latin America												
Real GDP	-2.7	3.7	3.8	4.4	3.0	0.0	1.3	-0.1	2.6	2.7	4.2	1.2
GDP deflator 1/	30.3	40.8	69.0	62.8	125.5	66.5	35.9	29.6	24.5	13.7	15.8	49.6
Real exports	2.0	12.0	2.0	0.0	8.0	6.8	10.4	3.9	3.1	2.5	2.1	5.2
Africa												
Real GDP	1.1	2.2	2.3	1.4	0.6	2.9	2.8	0.9	2.3	2.6	3.0	1.7
GDP deflator	16.7	12.2	12.2	8.4	25.3	17.4	19.5	15.3	18.0	13.8	16.9	14.5
Real exports	-5.3	-1.6	3.5	-1.0	0.0	2.9	5.0	7.5	6.1	1.7	1.5	-2.0
Middle East												
Real GDP	4.5	1.2	1.7	-3.6	-0.1	-0.2	2.5	5.8	-10.3	7.3	7.5	1.9
GDP deflator	-4.5	1.2	3.1	5.7	14.8	9.3	13.2	19.6	2.2	9.3	12.7	7.7
Real exports	-19.6	-6.7	-7.1	-3.8	24.6	4.8	21.0	5.0	17.2	10.9	36.0	0.1

1/ Excludes Yugoslavia, Argentina, Brazil, &amp; Peru starting in 1989. E = estimate. F = forecast.

Information contact: Alberto Jofardo, (202) 219-0717.

## Farm Prices

Table 4.—Indexes of Prices Received &amp; Paid by Farmers, U.S. Average

	Annual			1991						
	1989	1990	1991	Oct	May	June	July	Aug	Sept R	Oct P
1977 = 100										
Prices received										
All farm products	147	149	146	142	141	140	138	139	138	138
All crops	134	127	130	128	123	122	117	117	117	117
Food grains	166	123	115	128	148	139	129	123	130	134
Feed grains & hay	128	123	118	115	124	124	117	110	109	104
Feed grains	123	118	115	114	124	122	115	108	107	100
Cotton	98	107	108	104	88	94	81	89	87	87
Tobacco	149	152	181	159	145	145	139	148	163	162
Oil-bearing crops	102	94	91	84	86	87	83	82	85	82
Fruit, all	194	188	268	272	203	184	153	162	159	164
Fresh market 1/	205	197	299	297	213	198	150	160	156	160
Commercial vegetables	145	142	136	119	123	120	137	155	158	177
Fresh market	144	144	132	113	118	113	137	163	164	166
Potatoes & dry beans	188	189	140	103	111	119	176	183	130	125
Livestock & products	180	170	181	158	157	157	158	180	158	159
Meat animals	174	193	185	176	179	177	177	178	176	177
Dairy products	140	141	128	139	133	136	138	139	139	139
Poultry & eggs	137	131	123	120	113	114	117	119	120	120
Prices paid										
Commodities & services										
Interest, taxes, & wage rates	178	184	189	189	191	191	192	192	192	192
Production items	165	171	173	172	174	174	175	175	176	174
Feed	136	128	123	123	—	—	123	—	—	119
Feeder livestock	194	213	214	203	—	—	204	—	—	206
Seed	185	165	163	163	—	—	162	—	—	162
Fertilizer	137	131	134	132	—	—	132	—	—	128
Agricultural chemicals	132	139	151	154	—	—	160	—	—	180
Fuels & energy	180	204	203	200	—	—	206	—	—	205
Farm & motor supplies	151	154	154	159	—	—	160	—	—	161
Autos & trucks	223	231	244	248	—	—	282	—	—	282
Tractors & self-propelled machinery	193	202	211	216	—	—	217	—	—	224
Other machinery	208	216	228	230	—	—	234	—	—	235
Building & fencing	141	143	148	147	—	—	150	—	—	152
Farm services & cash rent	161	165	170	170	—	—	171	—	—	171
Int. Payable Per acre on farm real estate debt	176	174	172	172	—	—	166	—	—	168
Taxes payable Per acre on farm real estate	151	156	160	160	—	—	165	—	—	165
Wage rates (seasonally adjusted)	185	191	201	183	—	—	212	—	—	212
Production items, interest, taxes, & wage rates	167	172	175	173	—	—	176	—	—	176
Ratio, prices received to prices paid (%) 2/	83	81	77	75	74	73	72	72	72	72
Prices received (1910-14=100)	573	681	666	651	643	640	630	633	631	631
Prices paid, etc. (parity index) (1910-14=100)	1,221	1,265	1,299	1,298	—	—	1,322	—	—	1,324
Parity ratio (1910-14=100) (%) 2/	55	54	51	50	—	—	48	—	—	48

1/ Fresh market for noncitrus; fresh market &amp; processing for citrus. 2/ Ratio of index of prices received for all farm products to index of prices paid for commodities &amp; services, interest, taxes, &amp; wage rates. Ratio uses the most recent prices paid index. Prices paid data are quarterly &amp; will be published in January, April, July, &amp; October. R = revised. P = preliminary. — = not available.

Information contact: Ann Duncan (202) 219-0313.



**Table 5.—Prices Received by Farmers, U.S. Average**

	Annual 1/			1991						
	1989	1990	1991	Oct	May	June	July	Aug	Sept R	Oct P
<b>CROPS</b>										
All wheat (\$/bu.)	3.72	2.81	3.05	3.07	3.66	3.42	3.14	3.01	3.21	3.31
Rice, rough (\$/cwt)	7.35	6.70	7.70	7.61	7.11	6.93	6.94	6.61	6.40	6.44
Corn (\$/bu.)	2.36	2.28	2.40	2.31	2.49	2.47	2.33	2.15	2.15	1.99
Sorghum (\$/cwt)	3.75	3.78	4.15	3.93	4.31	4.22	3.80	3.77	3.88	3.32
All hay, baled (\$/ton)	85.40	80.60	71.00	68.90	74.20	75.50	71.80	69.60	68.50	70.50
Soybeans (\$/bu.)	5.69	5.74	5.60	5.49	5.87	5.94	5.59	5.40	5.35	5.12
Cotton, upland (cts./lb.)	63.6	67.1	—	62.7	52.2	56.9	55.3	53.8	52.6	52.4
Potatoes (\$/cwt)	7.36	6.08	5.05	4.06	4.42	4.88	7.59	6.84	5.11	4.80
Lettuce (\$/cwt) 2/	12.60	11.50	11.40	10.80	11.30	9.81	13.10	19.90	20.80	17.20
Tomatoes fresh (\$/cwt) 2/	33.20	27.40	31.90	20.50	16.70	24.20	27.80	24.50	30.10	64.90
Onions (\$/cwt)	11.40	10.50	12.50	10.00	12.50	8.73	12.20	15.90	12.40	12.20
Dry edible beans (\$/cwt)	28.50	18.50	15.60	14.40	16.70	15.40	17.20	18.90	20.20	21.20
Apples for fresh use (cts./lb.)	13.9	20.9	25.1	24.1	25.0	25.7	27.1	30.4	29.3	22.4
Pears for fresh use (\$/ton)	336.00	360.00	385.00	399.00	437.00	—	390.00	276.00	426.00	398.00
Oranges, all uses (\$/box) 3/	7.08	6.16	7.35	9.62	8.73	5.14	2.32	1.85	1.37	1.79
Grapefruit, all uses (\$/box) 3/	4.41	5.88	5.26	5.96	3.98	4.02	2.87	3.32	3.73	7.09
<b>LIVESTOCK</b>										
Beef cattle (\$/cwt)	89.70	74.80	72.90	70.40	71.90	70.20	70.60	71.80	71.70	71.80
Calves (\$/cwt)	91.80	96.50	100.00	93.90	89.60	88.40	90.10	90.60	87.40	88.30
Hogs (\$/cwt)	43.20	54.00	48.80	43.60	44.80	46.40	44.40	43.90	41.90	42.60
Lambs (\$/cwt)	67.30	56.00	52.60	51.70	68.80	67.00	61.40	56.00	56.70	55.80
All milk, sold to plants (\$/cwt)	13.56	13.74	12.26	13.50	12.90	13.20	13.40	13.50	13.50	13.50
Milk, manuf. grade (\$/cwt)	12.38	12.34	11.05	12.60	11.90	12.20	12.40	12.40	12.30	12.10
Broilers (cts./lb.)	36.1	32.4	31.0	31.0	31.7	31.6	33.8	34.6	31.8	32.9
Eggs (cts./doz.) 4/	70.0	70.4	66.9	62.0	51.7	53.0	52.3	53.4	59.5	56.9
Turkeys (cts./lb.) 5/	40.0	38.4	38.5	37.0	37.8	37.4	38.2	37.9	37.1	38.6
Wool (cts./lb.) 5/	124.0	80.0	55.0	59.0	90.3	87.1	74.1	65.0	52.2	69.5

1/ Season average price by crop year for crops. Calendar year average of monthly prices for livestock. 2/ Excludes Hawaii. 3/ Equivalent on-tree returns. 4/ Average of all eggs sold by producers including hatching eggs & eggs sold at retail. 5/ Average local market price, excluding incentive payments. P = preliminary. R = revised. — = not available.

Information contact: Ann Duncan (202) 219-0313.

## Producer & Consumer Prices

**Table 6.—Consumer Price Index for All Urban Consumers, U.S. Average (Not Seasonally Adjusted)**

	Annual	1991	1992							
	1991	Oct	Mar	Apr	May	June	July	Aug	Sept	Oct
1982-84=100										
Consumer Price Index, all items	136.2	137.2	139.3	139.5	139.7	140.2	140.5	140.9	141.3	141.8
Consumer Price Index, less food	136.1	137.4	139.5	139.7	140.1	140.7	141.1	141.4	141.8	138.9
All food	136.3	136.0	136.1	136.1	137.4	137.4	137.2	138.0	138.5	138.3
Food away from home	137.9	138.9	140.1	140.2	140.4	140.7	140.8	141.0	141.2	141.3
Food at home	135.8	134.9	137.5	137.4	136.2	136.1	135.7	136.9	137.4	137.2
Meats 1/	132.5	131.9	131.1	130.2	130.3	131.0	130.0	130.6	130.9	131.1
Beef & veal	132.4	131.0	133.4	133.2	132.6	132.7	130.7	131.4	131.8	132.6
Pork	134.1	134.1	127.0	125.1	126.8	127.9	129.1	129.5	129.4	128.7
Poultry	131.5	131.0	128.2	129.2	129.1	130.7	132.1	133.7	134.0	133.3
Fish	148.3	147.8	152.6	153.5	151.6	149.1	150.4	151.6	151.2	151.4
Eggs	121.2	118.0	106.0	105.1	104.2	100.7	104.7	102.2	111.6	109.3
Dairy products 2/	125.1	125.3	127.8	127.4	127.0	127.8	128.3	129.2	129.7	130.1
Fats & oils 3/	131.7	131.1	129.8	129.6	130.4	130.2	129.9	129.5	129.9	129.9
Fresh fruit	193.9	194.3	188.7	187.4	190.0	182.9	173.3	181.4	189.2	182.1
Processed fruit	131.8	131.3	138.8	140.0	140.0	138.3	138.4	138.2	138.0	136.4
Fresh vegetables	154.4	137.6	172.7	175.4	149.6	146.9	148.1	153.8	152.8	155.2
Potatoes	144.6	143.7	132.1	135.6	136.7	141.0	155.9	164.7	153.1	143.0
Processed vegetables	128.5	128.1	128.6	128.6	128.8	129.0	129.2	130.2	129.1	129.1
Cereals & bakery products	145.8	146.5	149.7	150.6	150.7	151.6	152.4	153.1	152.6	152.8
Sugar & sweets	129.3	129.6	132.9	133.0	132.9	133.3	133.8	133.8	133.7	133.7
Beverages, nonalcoholic	114.1	112.8	115.3	114.4	114.5	115.0	113.9	114.1	114.2	114.1
Apparel										
Apparel, commodities less footwear	127.4	130.4	132.3	132.0	131.8	129.0	126.8	128.1	131.7	133.7
Footwear	120.9	122.2	124.6	125.6	128.0	125.4	124.4	124.9	126.3	127.1
Tobacco & smoking products	202.7	205.7	213.5	214.9	220.0	219.2	220.5	221.5	224.0	225.6
Beverages, alcoholic	142.8	144.4	146.7	147.2	147.4	147.5	147.7	147.8	148.0	148.2

1/ Beef, veal, lamb, pork, & processed meat. 2/ Includes butter. 3/ Excludes butter.

Information contact: Ann Duncan (202) 219-0313.

Table 7.—Producer Price Indexes, U.S. Average (Not Seasonally Adjusted)

	Annual			1991	1992					
	1989	1990	1991	Sept	Apr	May R	June	July	Aug	Sept
	1982 = 100									
All commodities	112.2	116.3	116.5	116.1	116.3	117.2	117.8	117.8	117.6	117.8
Finished goods 1/	113.6	119.2	121.7	121.4	122.4	123.2	123.7	123.7	123.5	123.3
All foods 2/	117.8	123.2	122.2	120.7	120.5	120.8	120.4	120.2	120.6	120.6
Consumer foods	118.7	124.4	124.4	122.7	122.8	123.1	123.0	122.9	123.2	123.2
Fresh fruit & melons	113.2	118.1	129.9	135.3	85.6	87.4	79.7	70.8	78.1	72.8
Fresh & dried vegetables	116.7	118.1	103.8	87.7	104.1	98.8	85.8	99.8	119.3	107.8
Dried fruit	103.0	106.7	111.8	111.8	114.5	115.1	114.3	113.9	113.8	113.8
Canned fruit & juice	122.7	127.0	128.6	129.6	136.0	136.7	136.3	136.3	135.5	133.5
Frozen fruit & juice	123.9	139.0	116.3	111.4	134.8	130.1	125.7	123.5	123.1	121.7
Fresh veg. excl. potatoes	103.9	107.8	100.2	81.8	99.7	89.9	81.1	85.5	115.5	115.1
Canned veg. & juices	118.6	116.7	112.9	111.4	108.9	109.8	109.6	109.5	109.4	108.8
Frozen vegetables	115.5	118.4	117.8	117.6	118.4	116.3	115.6	115.3	115.2	116.8
Potatoes	153.6	157.3	125.7	110.8	112.5	104.7	108.6	195.1	172.4	115.8
Eggs for fresh use	3/	3/	3/	3/	76.0	71.9	71.0	71.7	73.7	85.8
Bakery products	135.4	141.0	146.6	147.8	151.7	152.7	153.0	153.2	153.5	153.4
Meats	104.8	117.0	113.5	108.5	107.4	108.9	107.2	108.5	106.0	108.0
Beef & veal	108.9	118.0	112.2	104.8	111.9	112.1	108.0	106.4	107.1	107.4
Pork	97.7	119.8	113.4	108.7	97.0	101.4	101.7	102.5	100.7	100.0
Processed poultry	120.4	113.6	109.9	112.8	107.3	109.7	110.3	109.8	112.0	111.8
Fish	142.9	147.2	149.5	138.9	168.0	154.1	158.9	156.5	148.1	149.8
Dairy products	110.6	117.2	114.6	115.9	115.4	116.9	118.8	118.9	120.1	120.2
Processed fruits & vegetables	119.9	124.7	119.8	118.8	122.0	122.0	121.1	120.7	120.4	119.8
Shortening & cooking oil	118.8	123.2	116.5	115.6	114.0	116.1	117.5	115.0	111.3	112.8
Soft drinks	177.7	122.3	125.5	124.6	125.0	125.9	127.9	127.2	124.6	125.0
Consumer finished goods less foods	108.9	115.3	118.7	119.0	119.6	120.9	122.0	122.0	121.6	121.4
Beverages, alcoholic	115.2	117.2	123.7	123.3	126.3	126.7	126.3	127.0	126.6	125.7
Apparel	114.5	117.5	119.6	120.2	121.9	121.8	121.8	122.2	122.2	122.3
Footwear	120.8	125.6	128.6	129.5	131.5	131.6	132.0	131.8	132.3	132.6
Tobacco products	194.8	221.4	249.7	254.9	273.7	283.2	282.8	283.4	285.3	273.9
Intermediate materials 4/	112.0	114.5	114.4	114.6	113.8	114.5	115.3	115.3	115.3	115.8
Materials for food manufacturing	112.7	117.9	115.3	114.8	113.6	114.8	115.3	114.4	113.8	114.3
Flour	114.6	103.6	96.8	98.6	112.4	111.3	112.9	106.8	100.9	102.9
Refined sugar 5/	118.2	122.7	121.6	121.2	120.2	119.9	120.4	120.4	120.9	119.8
Crude vegetable oils	103.7	115.8	103.0	101.7	96.4	101.6	107.3	97.3	89.4	92.8
Crude materials 6/	103.1	108.9	101.2	98.0	98.8	101.2	101.5	101.3	100.9	102.0
Foodstuffs & feedstuffs	111.2	113.1	105.5	103.0	105.5	108.4	107.3	105.0	103.7	103.0
Fruits & vegetables & nuts 7/	114.8	117.5	114.7	108.1	92.7	91.3	83.0	85.2	95.9	89.1
Grains	106.4	97.4	92.0	92.4	102.7	103.5	105.7	95.0	88.5	90.6
Livestock	108.1	115.6	107.9	101.1	106.7	108.0	105.3	103.7	104.2	103.4
Poultry, live	128.8	118.8	111.2	118.7	102.8	116.1	110.2	124.1	120.5	111.8
Fibers, plant & animal	107.8	117.8	115.1	103.5	89.0	93.4	96.2	102.0	96.6	93.8
Fluid milk	98.8	100.8	89.5	94.3	91.7	95.3	97.3	99.7	100.2	99.5
Oilseeds	123.8	112.1	106.4	107.0	107.9	113.6	117.4	109.2	104.9	105.1
Tobacco, leaf	93.8	95.8	101.1	104.1	94.4	94.4	94.4	94.4	93.1	105.1
Sugar, raw cane	115.5	119.2	113.7	114.1	112.4	111.4	110.4	110.4	111.7	112.8

1/ Commodities ready for sale to ultimate consumer. 2/ Includes all raw, intermediate, & processed foods (excludes soft drinks, alcoholic beverages, & manufactured animal feeds). 3/ New index beginning Dec. 1991. 4/ Commodities requiring further processing to become finished goods. 5/ All types & sizes of refined sugar. 6/ Products entering market for the first time that have not been manufactured at that point. 7/ Fresh & dried. R = revised.

Information contact: Ann Duncan (202) 219-0313.



## Farm-Retail Price Spreads

Table 8.—Farm-Retail Price Spreads

	Annual			1991	1992					
	1989	1990	1991	Sept	Apr	May	June	July	Aug	Sept
<b>Market basket 1/</b>										
Retail cost (1982-84=100)	124.6	133.5	137.4	136.6	139.0	137.8	137.6	137.2	138.4	139.1
Farm value (1982-84=100)	107.1	113.1	108.1	102.1	104.2	102.6	102.7	103.7	104.5	104.7
Farm-retail spread (1982-84=100)	134.1	144.5	154.2	155.1	157.7	156.7	156.3	155.3	158.6	157.6
Farm value-retail cost (%)	30.1	29.7	27.0	26.2	28.3	26.1	28.1	28.5	26.4	26.4
<b>Meat products</b>										
Retail cost (1982-84=100)	116.7	128.5	132.5	131.9	130.2	130.3	131.0	130.0	130.8	130.9
Farm value (1982-84=100)	103.6	116.8	110.0	102.9	105.7	107.5	107.8	107.2	104.7	104.8
Farm-retail spread (1982-84=100)	130.2	140.4	155.8	161.7	155.3	153.7	154.8	153.4	157.1	157.8
Farm value-retail cost (%)	44.9	46.0	42.0	39.5	41.1	41.8	41.7	41.8	40.6	40.6
<b>Dairy products</b>										
Retail cost (1982-84=100)	115.6	126.5	125.1	125.3	127.4	127.0	127.8	128.3	129.2	129.7
Farm value (1982-84=100)	99.1	101.7	90.0	92.1	91.5	93.9	96.1	97.8	99.1	99.3
Farm-retail spread (1982-84=100)	130.8	149.5	157.5	155.9	160.5	157.5	157.0	156.4	157.0	157.7
Farm value-retail cost (%)	41.1	38.5	34.5	35.3	34.5	35.5	36.1	36.8	36.8	36.7
<b>Poultry</b>										
Retail cost (1982-84=100)	132.7	132.5	131.5	131.0	129.2	129.1	130.7	132.1	133.7	134.0
Farm value (1982-84=100)	117.1	107.8	102.5	106.5	97.5	104.1	103.7	110.1	112.1	104.1
Farm-retail spread (1982-84=100)	150.6	161.1	184.9	159.3	165.7	157.9	161.7	157.4	158.5	168.4
Farm value-retail cost (%)	47.2	43.5	41.7	43.5	40.4	43.2	42.5	44.6	44.9	41.6
<b>Eggs</b>										
Retail cost (1982-84=100)	118.5	124.1	121.2	118.0	105.1	104.2	100.7	104.7	102.2	111.6
Farm value (1982-84=100)	107.5	108.0	100.9	93.7	73.7	67.0	69.9	68.6	70.7	84.1
Farm-retail spread (1982-84=100)	138.1	153.2	157.6	161.7	161.5	171.0	156.0	169.6	158.9	161.1
Farm value-retail cost (%)	58.3	55.9	53.5	51.0	45.1	41.3	44.6	42.1	44.4	48.4
<b>Cereal &amp; bakery products</b>										
Retail cost (1982-84=100)	132.4	140.0	145.8	146.5	150.6	150.7	151.6	152.4	153.1	152.6
Farm value (1982-84=100)	101.7	90.5	85.3	87.2	99.0	99.6	96.5	90.9	87.7	89.6
Farm-retail spread (1982-84=100)	136.7	146.9	154.3	154.8	157.8	157.8	159.3	161.0	162.2	161.4
Farm value-retail cost (%)	9.4	7.9	7.2	7.3	8.0	8.1	7.8	7.3	7.0	7.2
<b>Fresh fruits</b>										
Retail cost (1982-84=100)	154.7	174.6	200.1	203.0	192.0	197.2	188.0	178.3	183.7	195.3
Farm value (1982-84=100)	108.5	128.3	174.4	166.7	114.5	116.3	121.4	116.7	119.3	127.6
Farm-retail spread (1982-84=100)	178.0	195.9	211.9	219.8	227.8	234.6	218.7	206.7	213.4	228.6
Farm value-retail cost (%)	22.2	23.2	27.5	25.9	18.8	18.6	20.4	20.7	20.5	20.6
<b>Fresh vegetables</b>										
Retail cost (1982-84=100)	143.1	151.1	154.4	137.6	175.4	149.6	148.9	148.1	153.8	152.8
Farm value (1982-84=100)	123.3	124.4	110.8	86.6	156.7	194.7	88.6	110.3	128.5	125.5
Farm-retail spread (1982-84=100)	153.2	164.9	176.8	163.8	185.0	177.8	176.9	167.5	166.8	166.8
Farm value-retail cost (%)	29.3	28.0	24.4	21.4	30.3	21.5	20.5	25.3	28.4	27.9
<b>Processed fruits &amp; vegetables</b>										
Retail cost (1982-84=100)	125.0	132.7	130.2	129.8	135.0	135.0	134.1	134.2	134.6	134.0
Farm value (1982-84=100)	132.4	144.0	121.6	119.9	133.2	132.8	131.2	129.9	129.9	128.9
Farm-retail spread (1982-84=100)	122.7	129.1	132.9	132.9	135.5	135.7	135.0	135.6	136.1	135.6
Farm value-retail cost (%)	25.2	25.8	22.2	22.0	23.5	23.4	23.3	23.0	22.9	22.9
<b>Fats &amp; oils</b>										
Retail cost (1982-84=100)	121.2	126.3	131.7	131.1	129.6	130.4	130.2	129.9	129.5	129.9
Farm value (1982-84=100)	95.6	107.1	98.0	95.2	91.5	96.9	99.4	89.2	88.7	89.1
Farm-retail spread (1982-84=100)	130.6	133.4	144.2	144.3	143.6	142.7	141.5	144.9	144.5	144.9
Farm value-retail cost (%)	21.2	22.8	20.0	19.5	19.0	20.0	20.5	18.5	18.4	18.4
	Annual			1991	1992					
	1989	1990	1991	Oct	May	June	July	Aug	Sept	Oct
<b>Beef, Choice</b>										
Retail price 2/ (cts./lb.)	265.7	281.0	288.3	277.2	285.8	287.1	283.8	280.1	284.1	285.6
Wholesale value 3/ (csts.)	176.8	189.6	182.5	174.5	183.4	180.8	173.6	175.8	175.9	177.5
Net farm value 4/ (csts.)	157.6	168.4	160.2	149.8	164.1	159.4	156.9	159.0	159.6	160.1
Farm-retail spread (csts.)	108.1	112.6	128.1	127.4	121.7	127.7	126.9	121.1	124.5	125.5
Wholesale-retail 5/ (csts.)	88.9	91.4	105.8	102.7	102.4	106.3	110.2	104.3	108.2	108.1
Farm-wholesale 6/ (csts.)	19.2	21.2	22.3	24.7	19.3	21.4	18.7	18.8	18.3	17.4
Farm value-retail price (%)	59	60	56	54	57	56	55	57	56	56
<b>Pork</b>										
Retail price 2/ (csts./lb.)	182.9	212.6	211.9	207.7	196.4	197.1	200.6	200.4	199.6	198.4
Wholesale value 3/ (csts.)	99.2	118.3	108.9	104.6	101.2	104.8	101.8	101.7	99.6	98.8
Net farm value 4/ (csts.)	70.4	87.2	78.4	69.4	73.3	76.1	72.2	71.6	67.4	67.1
Farm-retail spread (csts.)	112.5	125.4	133.5	138.3	123.1	121.0	128.4	128.8	132.2	131.3
Wholesale-retail 5/ (csts.)	83.7	94.3	103.0	103.1	95.2	92.3	98.8	98.7	100.0	99.6
Farm-wholesale 6/ (csts.)	28.8	31.1	30.5	35.2	27.9	28.7	29.6	30.1	32.2	31.7
Farm value-retail price (%)	38	41	37	33	37	39	36	36	34	34

1/ Retail costs are based on CPI-U of retail prices for domestically produced farm foods, published monthly by BLS. The farm value is the payment for the quantity of farm equivalent to the retail unit, less allowance for byproduct. Farm values are based on prices at first point of sale & may include marketing charges such as grading & packing for some commodities. The farm-retail spread, the difference between the retail price & the farm value, represents charges for assembling, processing, transporting, distributing. 2/ Weighted average price of retail cuts from pork & choice yield grade 3 beef. Prices from BLS. 3/ Value of wholesale (boxed beef) & wholesale cuts (pork) equivalent to 1 lb. of retail cuts adjusted for transportation costs & byproduct values. 4/ Market value to producer for live animal equivalent to 1 lb. of retail cuts, minus value of byproducts. 5/ Charges for retailing & other marketing services such as wholesaling, and in-city transportation. 6/ Charges for livestock marketing, processing, & transportation.

Information contacts: Denis Dunham (202) 219-0870, Larry Duewer (202) 219-0712.

Table 9.—Price Indexes of Food Marketing Costs

	Annual			1991			1992		
	1989	1990	1991	II	III	IV	I	II	III P
	1987=100*								
Labor—hourly earnings & benefits	379.5	393.2	409.7	409.7	408.8	414.3	417.7	418.1	419.2
Processing	390.3	404.4	420.4	420.9	418.8	425.2	430.5	432.6	435.1
Wholesaling	409.1	422.0	443.8	444.7	443.2	448.6	454.3	456.5	460.0
Retailing	355.6	369.5	383.9	383.0	383.7	389.1	392.2	390.0	385.3
Packaging & containers	364.6	367.6	371.2	372.0	369.8	368.0	364.0	364.3	364.1
Paperboard boxes & containers	323.7	323.9	320.3	318.4	317.9	322.5	324.4	324.4	325.1
Metal cans	443.2	455.0	470.5	469.2	471.7	473.0	477.4	479.6	477.7
Paper bags & related products	409.2	413.0	410.9	419.5	411.4	389.6	351.0	351.7	348.5
Plastic films & bottles	313.2	307.1	310.7	311.6	306.8	308.3	308.6	307.9	310.2
Glass containers	409.9	427.3	446.0	445.9	446.2	446.3	446.1	445.6	444.0
Metal foil	274.4	258.4	251.6	257.5	245.0	240.8	241.4	240.1	241.5
Transportation services	404.9	411.3	422.6	423.2	422.7	423.7	425.4	426.5	426.9
Advertising	409.1	433.0	460.1	458.0	462.2	466.7	477.6	479.6	486.0
Fuel & power	619.4	671.4	655.7	636.8	656.8	649.6	620.4	622.6	678.3
Electric	468.9	477.7	508.3	505.3	530.6	506.9	497.1	495.9	536.2
Petroleum	592.1	744.8	649.8	599.5	628.4	634.4	564.2	580.3	685.6
Natural gas	1,070.9	1,071.0	1,065.0	1,056.0	1,051.5	1,062.6	1,049.6	1,038.3	1053.5
Communications, water & sewage	247.3	253.1	261.7	260.4	263.5	264.5	265.3	265.8	267.5
Rent	277.1	273.0	282.7	283.6	262.3	280.7	279.9	279.7	276.3
Maintenance & repair	410.7	426.7	442.7	441.1	445.4	448.5	451.6	452.6	455.2
Business services	388.3	405.6	425.4	423.9	428.4	432.2	436.6	438.1	442.5
Supplies	321.4	321.1	319.3	319.5	314.6	317.5	314.5	314.9	320.9
Property taxes & insurance	439.7	462.2	480.5	477.4	482.4	488.0	491.3	492.4	497.8
Interest, short-term	172.1	155.5	114.5	118.5	114.1	96.2	82.0	82.4	66.7
Total marketing cost index	384.8	397.6	409.3	408.3	409.0	411.4	411.6	412.5	416.2

\* Indexes measure changes in employee earnings & benefits & in prices of supplies & services used in processing, wholesaling, & retailing U.S. farm foods purchased for at-home consumption. P = preliminary.

Information contact: Denis Dunham (202) 219-0870.



## Livestock &amp; Products

Table 10.—U.S. Meat Supply &amp; Use

	Beg. stocks	Production 1/	Imports	Total supply	Exports	Ending stocks	Consumption		Primary market price 3/
							Total	Per capita 2/	
				Million pounds 4/			Pounds		
<b>Beef</b>									
1990	335	22,743	2,356	25,434	1,006	397	24,031	87.8	78.56
1991	397	22,917	2,406	25,720	1,188	419	24,113	86.8	74.28
1992 F	419	23,150	2,410	25,979	1,345	400	24,234	86.4	74-76
1993 F	400	23,492	2,400	26,292	1,480	350	24,462	86.4	71-77
<b>Pork</b>									
1990	313	15,354	898	16,565	239	296	16,030	49.8	55.32
1991	296	15,999	775	17,070	263	393	16,394	50.4	49.69
1992 F	393	17,265	650	18,308	410	385	17,513	53.2	42-44
1993 F	385	17,851	655	18,891	460	375	18,056	54.3	39-45
<b>Veal 5/</b>									
1990	4	327	0	331	0	6	325	1.1	96.51
1991	6	306	0	312	0	7	305	1.0	99.95
1992 F	7	313	0	320	0	6	314	1.0	89-91
1993 F	6	310	0	316	0	4	312	1.0	85-91
<b>Lamb &amp; mutton</b>									
1990	6	363	59	430	3	6	419	1.5	55.54
1991	8	363	60	431	3	6	422	1.5	53.21
1992 F	6	353	66	425	3	8	414	1.4	59-61
1993 F	8	362	60	430	2	9	419	1.4	57-63
<b>Total red meat</b>									
1990	660	38,787	3,313	42,760	1,248	707	40,805	120.1	—
1991	707	39,585	3,241	43,533	1,474	825	41,234	119.6	—
1992 F	825	41,081	3,128	45,032	1,758	799	42,475	122.1	—
1993 F	799	42,015	3,115	45,929	1,942	738	43,249	123.2	—
<b>Broilers</b>									
1990	38	18,430	0	18,468	1,143	26	17,299	61.1	54.8
1991	26	19,591	0	19,617	1,261	36	18,320	63.9	52.0
1992 F	36	20,824	0	20,860	1,400	30	19,430	67.1	51-53
1993 F	30	21,525	0	21,555	1,435	35	20,085	68.7	49-55
<b>Mature chicken</b>									
1990	189	523	0	713	25	224	464	1.9	—
1991	224	508	0	732	28	274	429	1.7	—
1992 F	274	536	0	810	31	300	479	1.9	—
1993 F		522	0	822	30	230	562	2.2	—
<b>Turkeys</b>									
1990	236	4,514	0	4,750	54	306	4,390	17.6	63.2
1991	306	4,603	0	4,909	103	264	4,541	18.0	61.3
1992 F	264	4,764	0	5,028	156	320	4,552	17.8	58-60
1993 F		4,843	0	5,163	170	275	4,718	18.3	57-63
<b>Total poultry</b>									
1990	463	23,468	0	23,931	1,222	557	22,152	80.5	—
1991	557	24,701	0	25,258	1,392	575	23,291	83.6	—
1992 F	575	26,123	0	26,698	1,587	650	24,461	86.8	—
1993 F	650	26,890	0	27,540	1,635	540	25,365	89.2	—
<b>Red meat &amp; poultry</b>									
1990	1,123	62,255	3,313	66,691	2,469	1,264	62,958	200.6	—
1991	1,264	64,286	3,241	68,791	2,867	1,400	64,525	203.2	—
1992 F	1,400	67,204	3,128	71,730	3,345	1,449	66,936	208.9	—
1993 F	1,449	68,905	3,115	73,469	3,577	1,278	68,614	212.3	—

1/ Total including farm production for red meats & federally inspected plus nonfederally inspected for poultry. 2/ Retail weight basis. (The beef carcass-to-retail conversion factor was 70.5). 3/ Dollars per cwt for red meat; cents per pound for poultry. Beef: Medium # 1, Nebraska Direct 1,100-1,300 lb.; pork: barrows & gilts, Iowa, Southern Minnesota; veal: farm price of calves; lamb & mutton: Choice slaughter lambs, San Angelo; broilers: wholesale 12-city average; turkeys: wholesale NY 8-16 lb. young hens. 4/ Carcass weight for red meats & certified ready-to-cook for poultry. 5/ Beginning 1989 veal trade no longer reported separately. F = forecast — = not available.

Information contacts: Polly Cochran, or Maxine Davis (202) 219-0767.

Table 11.—U.S. Egg Supply &amp; Use

	Beg. stocks	Pro- duc- tion	Im- ports	Total supply	Ex- ports	Hatch- ing use	Ending stocks	Consumption		
								Total	Per capita	Wholesale price*
									No.	Cts./doz.
Million dozen										
1987	10.4	5,868.2	5.6	5,884.2	111.2	599.1	14.4	5,159.5	254.9	61.6
1988	14.4	5,784.2	5.3	5,803.9	141.8	605.9	15.2	5,041.0	246.9	62.1
1989	15.2	5,598.2	25.2	5,638.5	91.6	643.9	10.7	4,892.4	237.3	61.9
1990	10.7	5,685.3	9.1	5,685.0	100.5	678.5	11.6	4,894.4	235.0	62.2
1991	11.6	5,757.8	2.3	5,771.8	154.3	708.1	13.0	4,896.4	232.7	77.5
1992 F	13.0	5,871.3	3.4	5,887.7	150.6	726.1	14.0	4,995.0	234.7	64-66

\* Cartoned grade A large eggs, New York. F = forecast.

Information contact: Maxine Davis (202) 219-0767.

Table 12.—U.S. Milk Supply & Use<sup>1/</sup>

	Production	Farm use	Commercial			Total commercial supply	CCC net removals	Commercial		All milk price 1/	CCC net removals	
			Farm marketings	Beg. stock	Imports			Ending stocks	Disappearance		Skim solids basis	Total solids basis 2/
Billion pounds (milkfat basis)												
										\$/cwt	Billion pounds	
1985	143.0	2.5	140.6	4.8	2.8	148.2	13.3	4.5	130.4	12.76	17.2	15.8
1986	143.1	2.4	140.7	4.5	2.7	147.9	10.8	4.1	133.0	12.51	14.3	12.9
1987	142.7	2.3	140.5	4.1	2.5	147.1	8.8	4.0	135.7	12.54	9.3	8.3
1988	145.2	2.2	142.9	4.6	2.4	149.9	9.1	4.3	136.5	12.26	5.5	8.9
1989	144.2	2.1	142.2	4.3	2.5	149.0	9.4	4.1	135.5	13.56	0.4	4.0
1990	148.3	2.0	145.3	4.1	2.7	153.1	9.0	5.1	139.0	13.73	1.6	4.6
1991	148.5	2.0	146.5	5.1	2.8	154.3	10.5	4.5	139.3	12.23	3.9	6.6
1992 F	151.6	2.0	149.6	4.5	2.6	156.7	10.0	4.5	142.1	13.20	1.7	5.0

1/ Delivered to plants & dealers; does not reflect deductions. 2/ Arbitrarily weighted average of milkfat basis (40 percent) & skim solids basis (60 percent). F = forecast.

Information contact: Jim Miller (202) 219-0770.

Table 13.—Poultry &amp; Eggs

	Annual			1991						
	1989	1990	1991	Sept	Apr	May	June	July	Aug	Sept
<b>Broilers</b>										
Federally inspected slaughter, certified (mil. lb.)	17,334.2	18,553.9	19,727.7	1,590.8	1,729.7	1,740.3	1,824.7	1,819.9	1,763.3	1,801.4
Wholesale price, 12-city (cts./lb.)	59.0	54.8	52.0	53.65	49.5	55.1	52.4	56.0	56.1	51.3
Price of grower feed (\$/ton)	237	218	207	201	210	211	211	211	210	212
Broiler-feed price ratio 1/	3.0	3.0	3.0	3.2	2.8	3.0	3.0	3.2	3.3	3.0
Stocks beginning of period (mil. lb.)	35.9	38.3	26.1	41.5	31.8	35.4	31.8	33.7	35.1	36.0
Broiler-type chicks hatched (mil.) 2/	5,946.9	6,324.4	6,513.3	536.7	572.4	595.8	683.4	584.1	573.0	554.5
<b>Turkeys</b>										
Federally inspected slaughter, certified (mil. lb.)	4,174.8	4,560.9	4,651.9	404.8	385.2	374.2	434.7	452	411.9	431.3
Wholesale price, Eastern U.S., 8-16 lb. young hens (cts./lb.)	66.7	63.2	61.2	64.4	60.0	60.0	59.46	57.0	57.8	61.02
Price of turkey grower feed (\$/ton)	251.0	238	230	230	237	243	241	246	245	247
Turkey-feed price ratio 1/	3.2	3.2	3.3	3.5	3.1	3.1	3.1	3.1	3.1	3.0
Stocks beginning of period (mil. lb.)	249.7	235.9	306.4	625.8	393.3	430.2	486.8	580.1	662.1	672.7
Poults placed in U.S. (mil.)	290.7	304.9	308.0	21.2	28.2	28.6	28.8	29.3	25.5	21.6
<b>Eggs</b>										
Farm production (mil.)	67,178	67,983	69,094	5,651	5,819	5,907	5,885	5,899	5,909	5,747
Average number of layers (mil.)	269	270	274	274	277	276	275	275	274	277
Rate of lay (eggs per layer on farms)	249.5	251.7	252.4	20.7	21.0	21.4	20.7	21.5	21.6	20.8
Cartoned price, New York, grade A large (cts./doz.) 3/	81.9	82.2	77.5	75.5	65.0	58.9	62.0	58.6	64.6	70.5
Price of laying feed (\$/ton)	209	200	192	176	198	199	200	201	202	202
Egg-feed price ratio 1/	6.7	7.0	6.9	6.7	5.5	6.2	6.3	5.2	5.3	5.9
<b>Stocks, first of month</b>										
Shell (mil. doz.)	0.27	0.36	0.45	0.3	0.84	0.81	1.02	0.9	0.9	0.7
Frozen (mil. doz.)	14.9	10.3	11.2	12.4	15.0	14.3	14.4	16.1	14.8	15.3
Replacement chicks hatched (mil.)	383	398	417	33.9	35.8	38.3	34.3	32.0	28.2	27.9

1/ Pounds of feed equal in value to 1 dozen eggs or 1 lb. of broiler or turkey liveweight. 2/ Placement of broiler chicks is currently reported for 15 States only; henceforth, hatch of broiler-type chicks will be used as a substitute. 3/ Price of cartoned eggs to volume buyers for delivery to retailers.

Information contact: Maxine Davis (202) 219-0767.



Table 14.—Dairy

	Annual			1991	1992					
	1989	1990	1991	Sept	Apr	May	June	July	Aug	Sept
Milk prices, Minnesota-Wisconsin, 3.6% fat (\$/cwt) 1/	12.37	12.21	11.05	12.02	11.48	12.06	12.46	12.69	12.54	12.28
Wholesale prices										
Butter, grade A Chl. (cts./lb.)	127.9	102.1	99.3	100.7	86.2	83.8	78.6	76.6	76.8	81.7
Am. cheese, Wis assembly pl (cts./lb.)	138.8	136.7	124.4	139.7	131.9	139.9	141.3	141.8	142.0	136.9
Nonfat dry milk (cts./lb.) 2/	105.5	100.8	94.0	93.9	105.9	8/ 110.2	116.7	115.0	111.6	105.1
USDA net removals 3/										
Total milk equiv. (mil. lb.) 4/	9,416.9	9,017.2	10,429.2	28.0	1,061.3	1,235.9	648.2	620.5	393.5	241.5
Butter (mil. lb.)	413.4	400.3	442.8	1.6	46.7	55.0	27.7	22.5	17.4	8.3
Am. cheese (mil. lb.)	37.4	21.5	76.9	-7.0	2.2	0	0.2	0.3	0.3	0.3
Nonfat dry milk (mil. lb.)	0	117.8	269.5	3.5	7.9	24.5	4.8	5.5	9.9	14.0
Milk										
Milk prod., 21 States (mil. lb.)	122,509	125,772	126,683	9,927	10,866	11,258	10,868	10,939	10,756	10,310
Milk per cow (lb.)	14,369	14,776	14,977	1,189	1,316	1,363	1,316	1,324	1,301	1,248
Number of milk cows (1,000)	8,526	8,512	8,392	8,350	8,254	8,262	8,260	8,259	8,265	8,258
U.S. milk production (mil. lb.)	144,239	148,314	148,525	7/ 11,705	7/ 12,867	7/ 13,331	7/ 12,869	7/ 12,887	7/ 12,671	7/ 12,146
Stocks, beginning										
Total (mil. lb.)	8,379	9,036	13,359	18,483	19,069	20,050	20,703	21,489	22,028	21,151
Commercial (mil. lb.)	4,256	4,120	5,146	5,470	4,926	4,955	5,075	5,104	5,676	6,678
Government (mil. lb.)	4,122	4,916	8,213	13,014	14,143	15,095	15,628	16,384	16,350	15,475
Imports, total (mil. lb.)	2,499	2,690	2,624	224	211	216	215	220	170	—
Commercial disappearance (mil. lb.)	135,370	138,922	139,380	11,963	11,821	12,019	12,240	11,843	12,275	—
Butter										
Production (mil. lb.)	1,295.4	1,302.2	1,336.3	81.9	119.7	118.2	103.2	96.8	84.8	90.0
Stocks, beginning (mil. lb.)	214.7	258.2	416.1	629.4	655.7	701.7	734.1	766.2	780.6	732.3
Commercial disappearance (mil. lb.)	876.0	915.2	903.0	82.9	72.8	65.0	77.3	62.8	63.6	—
American cheese										
Production (mil. lb.)	2,874.1	2,894.2	2,804.9	211.0	244.9	261.8	259.7	259.3	242.4	222.9
Stocks, beginning (mil. lb.)	293.0	236.2	347.4	393.3	338.5	338.4	349.0	345.1	370.1	384.8
Commercial disappearance (mil. lb.)	2,683.1	2,784.4	2,792.7	230.2	244.3	262.7	263.7	232.9	246.2	—
Other cheese										
Production (mil. lb.)	2,941.3	3,167.0	3,285.9	274.0	289.8	289.1	288.3	286.7	293.6	297.1
Stocks, beginning (mil. lb.)	104.7	93.2	110.6	102.0	113.5	115.0	115.6	121.8	127.1	123.9
Commercial disappearance (mil. lb.)	3,208.9	3,426.4	3,676.2	296.0	309.4	310.5	305.9	304.7	316.3	—
Nonfat dry milk										
Production (mil. lb.)	874.7	879.2	877.5	43.3	82.2	89.2	81.3	76.0	69.2	62.8
Stocks, beginning (mil. lb.)	53.1	49.5	161.9	337.6	127.5	138.7	137.5	149.5	148.7	138.1
Commercial disappearance (mil. lb.)	873.0	697.6	862.7	59.9	70.7	54.7	54.5	56.5	48.3	—
Frozen dessert										
Production (mil. gal.) 5/	1,214.0	1,174.6	1,196.1	99.4	111.7	118.6	127.9	125.4	117.7	105.2
	Annual			1991				1992		
	1989	1990	1991	I	II	III	IV	I	II P	III P
Milk production (mil. lb.)	144,239	148,314	148,525	37,425	38,633	36,255	36,212	37,958	39,067	37,704
Milk per cow (lb.)	14,244	14,646	14,867	3,705	3,864	3,647	3,651	3,850	3,966	3,829
No. of milk cows (1,000)	10,126	10,127	9,990	10,101	9,999	9,940	9,918	9,858	9,851	9,846
Milk-feed price ratio 6/	1.65	1.71	1.58	1.48	1.48	1.59	1.77	1.68	1.85	1.75
Returns over concentrate costs (\$/cwt milk) 6/	10.18	10.39	9.00	8.25	8.05	9.25	10.45	9.60	9.50	10.20

1/ Manufacturing grade milk. 2/ Prices paid f.o.b. Central States production area. 3/ Includes products exported through the Dairy Export Incentive Program (DEIP). 4/ Milk equivalent, fat basis. 5/ Hard ice cream, ice milk, & hard sherbet. 6/ Based on average milk price after adjustment for price support deductions. 7/ Estimated. 8/ Entire period not available. Average of weeks reported. P = preliminary. — = not available.

Information contact: LaVerne T. Williams (202) 219-0770.

Table 15.—Wool

	Annual			1991			1992		
	1989	1990	1991	II	III	IV	I	II P	III P
U.S. wool price, (cts./lb.) 1/	370	256	199	200	217	182	209	222	210
Imported wool price, (cts./lb.) 2/	354	287	187	199	194	222	250	233	203
U.S. mill consumption, scoured									
Apparel wool (1,000 lb.)	120,534	120,622	143,519	37,111	34,578	33,916	36,929	36,045	34,462
Carpet wool (1,000 lb.)	14,122	12,124	14,363	3,118	4,561	3,588	4,580	3,623	3,145

1/ Wool price delivered at U.S. mills, clean basis, Graded Territory 64's (20.60-22.04 microns) staple 2-3/4" & up. 2/ Wool price, Charleston, SC warehouse, clean basis, Australian 60/62's, type 64A (24 micron). Duty since 1982 has been 10.0 cents. P = preliminary. — = not available.

Information contact: John Lawler (202) 219-0640.

Table 16.—Meat Animals

	Annual			1991	1992					
	1989	1990	1991	Sept	Apr	May	June	July	Aug	Sept
Cattle on feed (7 States)										
Number on feed (1,000 head) 1/	8,045	8,378	8,992	7,064	8,008	7,818	7,826	7,337	7,000	6,968
Placed on feed (1,000 head)	20,819	21,030	19,704	1,826	1,425	1,724	1,339	1,432	1,641	2,179
Marketings (1,000 head)	19,407	19,198	19,068	1,598	1,490	1,594	1,712	1,684	1,592	1,586
Other disappearance (1,000 head)	1,079	1,218	1,233	76	125	122	116	85	81	86
Beef steer—corn price ratio,										
Omaha 2/	30.3	32.8	31.6	28.8	31.6	30.6	29.4	32.2	34.7	35.1
Hog—corn price ratio, Omaha 2/	18.4	23.1	21.1	19.9	17.2	18.7	18.7	20.0	21.3	20.3
Market prices (\$/cwt)										
Slaughter cattle										
Choice steers, Omaha 1,000–1,100 lb.	72.52	77.40	73.83	67.20	78.93	76.31	74.15	73.05	73.08	73.68
Choice steers, Neb. Direct,										
1,100–1,300 lb.	73.86	78.56	74.28	68.07	77.61	76.18	74.02	73.23	73.96	74.44
Boning utility cows, Sioux Falls	48.98	53.60	50.31	49.77	44.92	45.63	43.47	44.28	46.13	48.43
Feeder cattle										
Medium no. 1, Oklahoma City										
600–700 lb.	86.66	92.15	92.74	89.74	84.57	84.99	85.19	87.46	88.18	87.48
Slaughter hogs										
Barrows & gilts, Iowa, S. Minn.	44.74	55.32	49.69	46.90	42.31	48.41	48.64	45.22	45.27	42.68
Feeder pigs										
S. Mo. 40–50 lb. (per head)	33.63	51.48	39.84	38.22	37.87	32.10	27.60	26.20	31.28	31.18
Slaughter sheep & lambs										
Lambs, Choice, San Angelo	67.32	65.54	62.73	53.25	74.63	68.88	64.50	58.17	53.50	52.50
Ewes, Good, San Angelo	38.58	35.21	31.98	29.63	35.00	31.63	29.44	33.57	35.38	32.39
Feeder lambs										
Choice, San Angelo	79.85	62.95	53.27	52.63	70.56	64.69	61.22	58.43	63.69	55.43
Wholesale meat prices, Midwest										
Boxed beef cut-out value	114.78	123.21	118.31	110.61	118.86	119.18	117.53	112.79	114.38	114.40
Canner & cutter cow beef	94.43	99.96	99.44	99.69	94.18	95.31	93.14	94.29	96.74	93.23
Pork loins, 14–18 lb. 3/	101.09	117.52	108.39	115.85	98.65	108.94	113.94	108.22	111.18	102.98
Pork bellies, 12–14 lb.	34.14	53.80	47.79	38.97	28.93	34.09	32.78	32.77	35.13	29.09
Hams, skinned, 14–17 lb.	69.39	87.70	81.80	85.0	—	—	—	—	—	—
All fresh beef retail price 4/	238.97	254.99	262.12	258.23	260.32	259.28	257.47	257.09	258.21	258.72
Commercial slaughter (1,000 head) 5/										
Cattle	33,918	33,241	32,690	2,703	2,587	2,745	2,923	2,860	2,782	2,809
Steers	16,539	16,587	16,732	1,386	1,365	1,473	1,614	1,571	1,494	1,458
Halfers	10,406	10,090	9,719	852	713	772	800	796	802	808
Cows	8,318	5,920	5,623	414	458	445	451	435	427	482
Bulls & stags	657	644	614	51	51	55	58	58	59	61
Calves	2,172	1,789	1,436	119	111	106	108	109	110	110
Sheep & lambs	5,466	5,654	5,722	477	526	388	436	444	418	489
Hogs	88,691	85,136	88,169	7,381	7,792	7,061	7,345	7,639	7,682	8,414
Commercial production (mil. lb.)										
Beef	22,974	22,634	22,800	1,940	1,786	1,899	2,038	2,015	1,980	1,995
Veal	344	316	296	24	25	25	25	24	24	23
Lamb & mutton	341	358	358	28	33	25	27	27	25	30
Pork	15,759	15,300	15,948	1,316	1,414	1,287	1,332	1,374	1,378	1,510

	Annual			1991			1992			
	1989	1990	1991	II	III	IV	I	II	III	IV
Cattle on feed (13 States)										
Number on feed (1,000 head) 1/	9,688	9,943	10,827	10,739	9,461	8,620	10,135	9,693	8,847	8,920
Placed on feed (1,000 head)	24,469	24,803	23,208	5,006	5,414	7,086	5,403	5,273	6,107	—
Marketings (1,000 head)	22,940	22,528	22,383	5,820	5,973	5,262	5,441	5,675	5,766	* 5,225
Other disappearance (1,000 head)	1,274	1,393	1,517	464	282	309	404	444	268	—
Hogs & pigs (10 States) 6/										
Inventory (1,000 head) 1/	43,210	42,200	42,900	41,990	44,520	46,900	45,735	44,770	47,225	49,145
Breeding (1,000 head) 1/	5,335	5,275	5,257	5,450	5,720	5,875	5,810	5,550	5,840	5,835
Market (1,000 head) 1/	37,875	36,925	37,643	36,540	38,600	41,225	40,125	39,220	41,385	43,310
Farrowings (1,000 head)	9,203	8,960	9,479	2,588	2,441	2,348	2,289	2,655	2,513	2,445
Pig crop (1,000 head)	71,807	70,589	75,035	20,832	19,278	18,551	18,475	21,504	20,493	—

1/ Beginning of period. 2/ Bushels of corn equal in value to 100 pounds live weight. 3/ Prior to 1984, 8–14 lb.; 1984 & 1985, 14–17 lb.; beginning 1986, 14–18 lb. 4/ New series estimating the composite price of all beef grades & ground beef sold by retail stores. This new series is in addition to, but does not replace, the series for the retail price of Choice beef that appears in table 8. 5/ Classes estimated. 6/ Quarters are Dec. of preceding year—Feb. (I), Mar.–May (II), June–Aug. (III), & Sept.–Nov. (IV). May not add to NASS totals due to rounding. — = not available. \* Intentions.

Information contact: Polly Cochran (202) 219-0767.



## Crops &amp; Products

Table 17.—Supply & Utilization<sup>1,2</sup>

	Area				Production	Total supply <sup>4/</sup>	Feed and residual	Other domestic use	Exports	Total use	Ending stocks	Farm price <sup>5/</sup>
	Set aside <sup>3/</sup>	Planted	Harvested	Yield								
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
<b>Wheat</b>												
1987/88	23.9	65.8	55.9	37.7	2,108	3,945	290	808	1,588	2,684	1,261	2.57
1988/89	22.5	65.5	53.2	34.1	1,812	3,098	150	829	1,415	2,394	702	3.72
1989/90	9.6	76.6	62.2	32.7	2,037	2,782	144	849	1,232	2,225	636	3.72
1990/91*	7.5	77.2	69.3	39.5	2,736	3,309	499	875	1,068	2,443	866	2.61
1991/92*	15.9	69.9	57.7	34.3	1,981	2,888	257	879	1,281	2,416	472	3.00
1992/93*	7.0	72.3	62.4	39.4	2,459	2,981	250	933	1,275	2,458	523	3.10-3.30
<b>Rice</b>												
	Mil. acres		Lb./acre					Mil. cwt (rough equiv.)				\$/cwt
1987/88	1.57	2.36	2.33	5,555	129.6	184.0	--	8/ 80.4	72.2	152.6	31.4	7.27
1988/89	1.09	2.93	2.90	5,514	159.9	195.1	--	8/ 82.5	85.9	168.4	26.7	6.83
1989/90	1.18	2.73	2.69	5,749	154.5	185.6	--	8/ 82.1	77.2	159.3	26.3	7.35
1990/91*	1.02	2.90	2.82	5,529	156.1	187.2	--	8/ 91.7	70.9	182.7	24.6	6.70
1991/92*	0.9	2.86	2.75	5,617	154.5	184.3	--	8/ 90.7	66.4	157.1	27.3	7.53
1992/93*	0.4	3.03	2.97	5,666	168.2	201.1	--	8/ 94.0	74.0	168.0	33.1	6.10-6.60
<b>Corn</b>												
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
1987/88	23.1	66.2	59.5	119.8	7,131	12,018	4,798	1,243	1,718	7,757	4,259	1.94
1988/89	20.5	67.7	58.3	84.6	4,829	9,191	3,941	1,293	2,026	7,260	1,930	2.54
1989/90	10.8	72.2	64.7	116.3	7,525	9,458	4,389	1,356	2,368	8,113	1,344	2.36
1990/91*	10.7	74.2	67.0	118.5	7,934	9,282	4,669	1,387	1,725	7,761	1,521	2.28
1991/92*	7.4	78.0	68.8	108.6	7,474	9,015	4,897	1,434	1,584	7,915	1,100	2.37
1992/93*	5.3	79.3	72.1	129.3	9,329	10,439	5,200	1,485	1,600	8,285	2,154	1.85-2.15
<b>Sorghum</b>												
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
1987/88	4.1	11.8	10.5	69.4	731	1,474	555	25	232	812	663	1.70
1988/89	3.9	10.3	9.0	63.8	577	1,239	466	22	312	800	440	2.27
1989/90	3.3	12.6	11.1	55.4	615	1,055	517	15	303	835	220	2.10
1990/91*	3.3	10.5	9.1	63.1	573	793	410	9	232	651	143	2.12
1991/92*	2.5	11.0	9.8	59.0	579	722	368	9	291	669	53	2.25
1992/93*	1.9	13.5	12.3	71.2	878	931	500	10	300	810	121	1.75-2.05
<b>Barley</b>												
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
1987/88	2.9	10.9	10.0	52.4	521	869	253	174	121	548	321	1.81
1988/89	2.8	9.8	7.8	38.0	290	822	171	175	79	425	196	2.79
1989/90	2.3	9.1	8.3	48.6	404	814	193	175	84	453	161	2.42
1990/91*	2.9	8.2	7.5	56.1	422	596	205	176	81	461	135	2.14
1991/92*	2.2	9.9	8.4	55.2	464	624	230	171	95	496	129	2.10
1992/93*	2.1	7.8	7.3	62.4	456	605	195	170	110	475	130	2.00-2.20
<b>Oats</b>												
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
1987/88	0.8	17.9	6.9	54.3	374	552	358	81	1	440	112	1.56
1988/89	0.3	13.9	5.5	39.3	218	392	194	100	1	294	98	2.61
1989/90	0.4	12.1	6.9	54.3	374	538	266	115	1	381	157	1.49
1990/91*	0.2	10.4	5.9	60.1	358	578	288	120	1	407	171	1.14
1991/92*	0.6	8.7	4.8	50.7	243	489	235	125	2	362	128	1.20
1992/93*	0.5	8.0	4.5	65.6	295	462	230	130	2	362	100	1.25-1.35
<b>Soybeans</b>												
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
1987/88	0	58.2	57.2	33.9	1,938	2,375	7/ 97	1,174	802	2,073	302	5.88
1988/89	0	58.8	57.4	27.0	1,549	1,855	7/ 88	1,058	527	1,873	182	7.42
1989/90	0	60.8	59.5	32.3	1,824	2,108	7/ 100	1,146	623	1,869	239	5.69
1990/91*	0	57.8	56.5	34.1	1,926	2,168	7/ 95	1,187	557	1,839	329	5.74
1991/92*	0	59.2	58.0	34.2	1,987	2,319	7/ 102	1,254	685	2,041	278	5.60
1992/93*	0	59.1	58.1	37.3	2,167	2,447	7/ 102	1,285	730	2,097	350	5.00-5.40
<b>Soybean oil</b>												
								Mil. lbs.				¢/Cts./lb.
1987/88	--	--	--	--	12,974	14,895	--	10,830	1,873	12,803	2,092	22.67
1988/89	--	--	--	--	11,737	13,967	--	10,591	1,681	12,252	1,715	21.10
1989/90	--	--	--	--	13,004	14,741	--	12,083	1,353	13,436	1,305	22.30
1990/91*	--	--	--	--	13,408	14,730	--	12,164	780	12,944	1,788	21.00
1991/92*	--	--	--	--	14,345	16,131	--	12,251	1,650	13,901	2,230	19.00
1992/93*	--	--	--	--	14,293	16,525	--	12,600	1,775	14,375	2,150	18.0-21.0
<b>Soybean meal</b>												
								1,000 tons				¢/ton
1987/88	--	--	--	--	28,060	28,300	--	21,293	6,854	28,147	153	239
1988/89	--	--	--	--	24,843	25,100	--	19,657	5,270	24,927	173	252
1989/90	--	--	--	--	27,719	27,900	--	22,263	5,319	27,582	318	186
1990/91*	--	--	--	--	28,325	28,666	--	22,912	5,469	28,381	285	181
1991/92*	--	--	--	--	29,831	30,180	--	23,300	6,650	29,950	230	189
1992/93*	--	--	--	--	30,050	30,330	--	24,030	6,000	30,030	300	165-190

See footnotes at end of table.

Table 17.—Supply &amp; Utilization, continued

	Area		Harvested	Yield	Production	Total supply	Feed and residual	Other domestic use	Exports	Total use	Ending Stocks	Farm price
	Set Aside	Planted										
	3/					4/						5/
	Mil. acres		Lb./acre		Mil. bales							
Cotton 10/												
1987/88	4.0	10.4	10.0	708	14.8	19.8	—	7.6	6.6	14.2	5.8	64.30
1988/89	2.2	12.5	11.9	819	15.4	21.2	—	7.8	8.1	13.9	7.1	58.60
1989/90	3.6	10.6	9.6	814	12.2	19.3	—	8.8	7.7	16.5	3.0	66.20
1990/91*	2.0	12.3	11.7	834	15.5	18.5	—	8.7	7.8	16.5	2.3	68.20
1991/92*	1.2	14.1	13.0	852	17.6	20.0	—	9.6	8.7	18.3	3.7	11/ 58.30
1992/93*	1.6	13.4	11.2	894	18.2	19.9	—	9.7	8.0	15.7	4.3	—

\* November 10, 1992 Supply & Demand Estimates. 1/ Marketing year beginning June 1 for wheat, barley, & oats; August 1 for cotton & rice; September 1 for soybeans, corn, & sorghum; October 1 for soybean meal & soybean oil. 2/ Conversion factors: Hectare (ha.) = 2.471 acres; 1 metric ton = 2,204.622 pounds; 36.7437 bushels of wheat or soybeans, 39.3679 bushels of corn or sorghum, 45.9296 bushels of barley, 68.8944 bushels of oats, 22.048 cwt of rice, & 4.59 480-pound bales of cotton. 3/ Includes diversion, acreage reduction, 50-92, & 0-92 programs. 0/92 & 50/92 set-aside includes idled acreage & acreage planted to minor oilseeds. Data for 1992/93 are preliminary. 4/ Includes imports. 5/ Marketing-year weighted average price received by farmers. Does not include an allowance for loans outstanding & Government purchases. 6/ Residual included in domestic use. 7/ Includes seed. 8/ Simple average of crude soybean oil, Decatur. 9/ Simple average of 48 percent, Decatur. 10/ Upland & extra long staple. Stocks estimates based on Census Bureau data, resulting in an unaccounted difference between supply & use estimates & changes in ending stocks. 11/ Weighted average for August-March; not a projection for the marketing year. — = not available or not applicable.

Information contact: Commodity Economics Division, Crops Branch (202) 219-0840.

Table 18.—Cash Prices, Selected U.S. Commodities.

	Marketing year 1/				1991		1992			
	1988/89	1989/90	1990/91	1991/92	Sept	May	June	July	Aug	Sept
Wheat, No. 1 HRW, Kansas City (\$/bu.) 2/	4.17	4.22	2.94	3.77	3.31	3.90	3.91	3.52	3.27	3.56
Wheat, DNS, Minneapolis (\$/bu.) 3/	4.36	4.18	3.06	3.82	3.21	4.44	4.42	4.04	3.66	3.79
Rice, S.W., La. (\$/cwt) 4/	14.85	15.55	15.25	16.50	16.65	15.70	15.10	15.20	15.00	14.75
Corn, no. 2 yellow, 30 day, Chicago (\$/bu.)	2.88	2.54	2.41	2.62	2.48	2.60	2.59	2.37	2.23	2.17
Sorghum, no. 2 yellow, Kansas City (\$/cwt)	4.17	4.21	4.08	4.38	4.24	4.54	4.51	4.05	3.77	3.76
Barley, feed, Duluth (\$/bu.) 6/	2.32	2.20	2.13	2.17	2.08	2.38	2.30	2.15	2.03	2.12
Barley, malting, Minneapolis (\$/bu.)	4.11	3.28	2.42	2.38	2.21	NQ	3.95	2.59	2.19	2.30
U.S. price, SLM, 1-1/16 in. (cts./lb.) 8/	57.7	69.8	74.8	56.7	62.4	55.5	58.8	60.9	57.6	53.5
Northern Europe price index (cts./lb.) 7/	68.4	82.3	82.9	82.9	69.9	81.0	64.4	65.2	59.2	56.3
U.S. M 1-3/32 in. (cts./lb.) 8/	69.2	83.0	88.2	86.3	73.1	83.6	67.7	71.3	82.9	80.3
Soybeans, no. 1 yellow, 30 day, Chicago (\$/bu.)	7.41	6.88	5.78	5.76	6.90	5.99	6.08	5.85	5.40	5.42
Soybean oil, crude, Decatur (cts./lb.)	21.10	22.30	21.00	19.13	20.46	20.23	20.71	18.62	17.87	18.28
Soybean meal, 48% protein, Decatur (\$/ton) 9/	252.40	188.50	181.40	181.38	204.25	195.25	203.90	188.25	186.00	187.00

1/ Beginning June 1 for wheat & barley; Aug. 1 for rice & cotton; Sept. 1 for corn, sorghum & soybeans; Oct. 1 for soybean meal & oil. 2/ Ordinary protein. 3/ 14% protein. 4/ Long grain, milled base. 5/ Beginning Mar. 1987 reporting point changed from Minneapolis to Duluth. 6/ Average spot market. 7/ Liverpool Cotlook "A" Index, average of five lowest prices of 13 selected growths. 8/ Memphis territory growths. 9/ Note change to 48% protein. NQ = no quotation.

Information contacts: Wheat, rice, & feed grains, Joy Harwood (202) 219-0840; Cotton, Les Meyer (202) 219-0840; Soybeans, Brenda Toland, (202) 219-0840.



Table 19.—Farm Programs, Price Supports, Participation &amp; Payment Rates

	Payment rates								Partici- pation rate 4/	
	Target price	Basic loan rate	Findley or announced loan rate 1/	Paid land diversion		Effective base acres 2/	Program 3/			
				Total deficiency	Mandatory					Optional
				\$/bu.			Mil. acres	Percent of base	Percent of base	
Wheat										
1987/88	4.38	2.85	2.28	1.81	---	---	87.8	27.5/0/0	88	
1988/89	4.23	2.78	2.21	0.89	---	---	84.8	27.5/0/0	88	
1989/90	4.10	2.58	2.08	0.32	---	---	82.3	10/0/0	78	
1990/91 5/	4.00	2.44	1.95	1.28	---	---	80.5	6/ 5/0/0	83	
1991/92	4.00	2.52	2.04	*1.35	---	---	79.2	15/0/0	85	
1992/93	4.00	2.58	2.21	**0.65	---	---	79.0	5/0/0	82	
1993/94	4.00	2.86	2.45	---	---	---	---	0/0/0	---	
Rice										
				\$/cwt						
1987/88	11.66	6.84	7/ 5.79	4.82	---	---	4.2	35/0/0	98	
1988/89	11.15	6.63	7/ 6.21	4.31	---	---	4.2	25/0/0	94	
1989/90	10.80	6.50	7/ 5.74	3.56	---	---	4.2	25/0/0	94	
1990/91 5/	10.71	6.50	7/ 5.81	4.16	---	---	4.2	20/0/0	94	
1991/92	10.71	6.50	7/ 5.85	3.07	---	---	4.2	5/0/0	95	
1992/93	10.71	6.50	---	*3.51	---	---	4.1	0/0/0	93	
Corn										
				\$/bu.						
1987/88	3.03	2.28	1.82	1.09	---	2.00	81.5	20/0/15	90	
1988/89	2.93	2.21	1.77	0.36	---	1.75	82.9	20/0/10	87	
1989/90	2.84	2.06	1.85	0.58	---	---	82.7	10/0/0	79	
1990/91 5/	2.75	1.96	1.57	0.51	---	---	82.6	10/0/0	77	
1991/92	2.75	1.89	1.62	0.41	---	---	82.7	7.5/0/0	77	
1992/93	2.75	2.01	1.72	**0.48	---	---	82.2	5/0/0	75	
1993/94	2.75	1.99	1.72	---	---	---	---	10/0/0	---	
Sorghum										
				\$/bu.						
1987/88	2.88	2.17	1.74	1.14	---	1.90	17.4	8/ 20/0/15	84	
1988/89	2.78	2.10	1.68	0.48	---	1.65	16.8	20/0/10	82	
1989/90	2.70	1.98	1.57	0.66	---	---	16.2	10/0/0	71	
1990/91 5/	2.61	1.88	1.49	0.58	---	---	15.4	10/0/0	70	
1991/92	2.61	1.80	1.54	0.37	---	---	13.5	7.5/0/0	77	
1992/93	2.61	1.91	1.63	**0.46	---	---	13.8	5/0/0	77	
1993/94	2.61	1.89	1.63	---	---	---	---	5/0/0	---	
Barley										
				\$/bu.						
1987/88	2.60	1.86	1.49	0.79	---	1.80	12.5	8/ 20/0/15	85	
1988/89	2.51	1.80	1.44	0.00	---	1.40	12.5	20/0/10	79	
1989/90	2.43	1.68	1.34	0.00	---	---	12.3	10/0/0	67	
1990/91 5/	2.36	1.60	1.28	0.20	---	---	11.9	10/0/0	68	
1991/92	2.36	1.54	1.32	0.62	---	---	11.5	7.5/0/0	78	
1992/93	2.36	1.64	1.40	**0.35	---	---	11.1	5/0/0	74	
1993/94	2.36	1.62	1.40	---	---	---	---	0/0/0	---	
Oats										
				\$/bu.						
1987/88	1.60	1.17	0.94	0.20	---	0.80	8.4	8/ 20/0/15	45	
1988/89	1.55	1.14	0.80	0.00	---	---	7.9	5/0/0	30	
1989/90	1.50	1.06	0.85	0.00	---	---	7.6	5/0/0	18	
1990/91 5/	1.45	1.01	0.81	0.32	---	---	7.5	5/0/0	09	
1991/92	1.45	0.97	0.83	0.35	---	---	7.3	0/0/0	38	
1992/93	1.45	1.03	0.88	**0.15	---	---	7.3	0/0/0	40	
1993/94	1.45	1.02	0.88	---	---	---	---	0/0/0	---	
Soybeans 9/										
				\$/bu.						
1987/88	---	---	4.77	---	---	---	---	---	---	
1988/89	---	---	4.77	---	---	---	---	---	---	
1989/90	---	---	4.53	---	---	---	---	10/ 10/25	---	
1990/91 5/	---	---	4.50	---	---	---	---	10/ 0/25	---	
1991/92	---	---	5.02	---	---	---	---	10/ 0/25	---	
1992/93	---	---	5.02	---	---	---	---	10/ 0/25	---	
Upland cotton										
				Cts./lb.						
1987/88	79.4	52.25	11/ 80.00	17.3	---	---	14.5	25/0/0	93	
1988/89	75.9	51.80	11/ 51.89	19.4	---	---	14.5	12.5/0/0	89	
1989/90	73.4	50.00	11/ 65.05	13.1	---	---	14.6	25/0/0	89	
1990/91 5/	72.9	50.27	11/ 67.00	7.3	---	---	14.4	12.5/0/0	86	
1991/92 12/	72.9	50.77	11/ 47.23	10.1	---	---	14.8	5/0/0	84	
1992/93	72.9	52.35	11/ ---	**15.0	---	---	14.9	10/0/0	87	
1993/94	72.9	52.35	11/ ---	---	---	---	---	7.5/0/0	---	

1/ There are no Findley loan rates for rice or cotton. See footnotes 8/, 12/, & 13/. 2/ National effective crop acreage base as determined by ASCS. Net of CRP.

3/ Program requirements for participating producers (mandatory acreage reduction program/mandatory paid land diversion/optional paid land diversion). Acreage must be devoted to a conserving use to receive program benefits. 4/ Percentage of effective base acres enrolled in acreage reduction programs. 5/ Payments & loans were reduced by 1.4 percent in 1990/91 due to Gramm-Rudman-Hollings. Budget Reconciliation Act reductions to deficiency payments rates were also in effect in that year. Data do not include these reductions. 6/ Under 1990 modified contracts, participating producers plant up to 105 percent of their wheat base acres. For every acre planted above 95 percent of base, the acreage used to compute deficiency payments was cut by 1 acre. 7/ A marketing loan has been in effect for rice since 1985/86. Loans may be repaid at the lower of: a) the loan rate or b) the adjusted world market price (announced weekly). However, loans cannot be repaid at less than a specified fraction of the loan rate. Data refer to annual average loan repayment rates. 8/ The sorghum, oats, & barley programs are the same as for corn except as indicated. 9/ There are no target prices, base acres, acreage reduction programs, or deficiency payment rates for soybeans. 10/ Nominal percentage of program crop base acres permitted to shift into soybeans without loss of base. 11/ A marketing loan has been in effect for cotton since 1988/87. In 1987/88 & after, loans may be repaid at the lower of: a) the loan rate or b) the adjusted world market price (announced weekly, Plan B). Starting in 1991/92, loans cannot be repaid at less than 70 percent of the loan rate. Data refer to annual average loan repayment rates. 12/ A marketing certificate program was implemented on Aug. 1, 1991. — = not available.

\* For wheat, the 1991/92 rate is the total deficiency payment rate for the "regular" program. For the winter wheat option, the rate is \$1.25.

\*\* Estimated total deficiency payment rate. Minimum guaranteed payment rate for 0/92 (wheat & feed grains) & 50/92 (rice and upland cotton) programs.

Information contact: Joy Harwood (202) 219-0840.

Table 20.—Fruit

	1983	1984	1985	1986	1987	1988	1989	1990	1991 P
Citrus 1/ Production (1,000 ton)	13,682	10,832	10,525	11,058	11,993	12,701	13,186	10,860	11,285
Per capita consumpt. (lbs.) 2/	28.0	22.6	21.8	24.3	24.0	25.4	25.1	22.1	19.9
Noncitrus 3/ Production (1,000 tons)	14,168	14,301	14,191	13,874	16,011	15,893	16,365	15,656	15,821
Per capita consumpt. (lbs.) 2/	62.6	66.3	65.3	68.8	73.5	72.0	73.6	70.5	70.7
1992									
F.o.b. shipping point prices	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Apples (\$/carton) 4/	13.73	21.13	15.00	15.00	15.13	15.50	16.56	25.70	16.73
Pears (\$/box) 5/	12.50	21.25	13.50	13.68	18.13	15.10	14.30	—	—
Grower prices									
Oranges (\$/box) 6/	6.19	6.30	7.39	6.44	6.50	4.75	2.06	1.65	1.37
Grapefruit (\$/box) 6/	6.02	6.35	7.15	6.68	4.23	4.45	4.00	3.32	3.73
Stocks, ending									
Fresh apples (mil. lbs.)	2,952.9	2,315.4	1,623.1	1,073.3	672.9	327.1	106.5	33.5	3,479.4
Fresh pears (mil. lbs.)	181.5	152.7	93.6	57.0	18.7	4.7	49.4	139.1	523.1
Frozen fruits (mil. lbs.)	803.8	741.8	634.1	582.0	613.7	668.1	803.1	881.0	937.0
Frozen orange juice (mil. lbs.)	1,130.7	1,149.7	1,102.9	1,269.3	1,306.2	1,133.4	978.0	874.9	740.7

1/ 1991 indicated 1990/91 season. 2/ Fresh per capita consumption. 3/ Calendar year. 4/ Red delicious, Washington, extra fancy, carton tray pack, 125's. 5/ D'Anjou, Washington, standard box wrapped, U.S. no. 1, 135's. 6/ U.S. equivalent on-tree returns. P = preliminary. — = not available.

Information contact: Wynnie Napper (202) 219-0884

Table 21.—Vegetables

	Calendar year									
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Production										
Total vegetables (1,000 cwt)	430,795	403,509	456,334	453,030	448,629	478,381	468,779	542,437	581,704	564,300
Fresh (1,000 cwt) 1/ 3/	193,451	185,782	201,817	203,548	203,165	220,539	228,397	239,281	239,104	229,007
Processed (tons) 2/ 3/	11,867,170	10,886,350	12,725,880	12,474,040	12,273,200	12,892,100	12,019,110	15,157,790	16,130,020	16,764,670
Mushrooms (1,000 lbs.) 4/	490,826	561,631	595,681	587,956	614,393	631,819	667,759	714,992	749,151	738,832
Potatoes (1,000 cwt)	355,131	333,726	362,039	406,609	391,743	389,320	356,438	370,444	402,110	418,228
Sweet potatoes (1,000 cwt)	14,833	12,083	12,902	14,573	12,368	11,911	10,945	11,358	12,594	11,203
Dry edible beans (1,000 cwt)	25,563	16,520	21,070	22,298	22,960	28,031	19,253	23,729	32,379	32,963
1991										
1992										
Shipments	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Fresh (1,000 cwt) 5/	16,563	22,759	17,429	17,527	28,955	28,050	29,056	25,358	15,813	18,112
Potatoes (1,000 cwt)	11,388	14,747	12,213	14,325	22,793	14,643	11,768	10,948	9,418	13,308
Sweet potatoes (1,000 cwt)	433	301	295	247	387	176	184	248	130	346

1/ Includes fresh production of asparagus, broccoli, carrots, cauliflower, celery, sweet corn, lettuce, honeydews, onions, & tomatoes. 2/ Includes processing production of snap beans, sweet corn, green peas, tomatoes, cucumbers (for pickles), asparagus, broccoli, carrots, & cauliflower. 3/ Asparagus & cucumber estimates were not available for 1982 & 1983. 4/ Fresh & processing agaricus mushrooms only. Excludes specialty varieties. Crop year July 1 - June 30. 5/ Includes snap beans, broccoli, cabbage, carrots, cauliflower, celery, sweet corn, cucumbers, eggplant, lettuce, onions, bell peppers, squash, tomatoes, cantaloupes, honeydews, & watermelons.

Information contacts: Gary Lucier or Cathy Greene (202) 219-0884.

Table 22.—Other Commodities

	Annual					1991			1992	
	1987	1988	1989	1990	1991	Apr-June	July-Sept	Oct-Dec	Jan-Mar	Apr-June
Sugar										
Production 1/	7,309	7,087	6,841	8,335	7,145	625	647	3,661	3,667	2,138
Deliveries 1/	8,167	8,188	8,340	8,681	8,698	2,103	2,340	2,236	2,236	2,016
Stocks, ending 1/	3,195	3,132	2,947	2,729	3,039	2,487	1,513	2,923	3,039	3,625
Coffee										
Composite green price N.Y. (cts./lb.)	109.14	119.59	95.17	76.93	70.09	72.13	68.18	64.84	64.84	59.19
Imports, green bean equiv. (mil. lbs.) 2/	2,638	2,072	2,830	2,714	2,572	563	562	699	699	840
1992										
1991										
1992										
Tobacco										
Prices at auctions 3/										
Flue-cured (\$/lb.)	167.4	167.3	172.3	—	—	—	—	—	—	—
Burley (\$/lb.)	167.2	175.3	178.8	—	162.5	—	—	—	—	—
Domestic consumption 4/										
Cigarettes (bil.)	540.0	523.1	516.3	42.3	38.6	48.5	43.6	39.0	51.7	38.3
Large cigars (mil.)	2,467.6	2,343.5	2,231.9	170.2	155.7	181.1	161.7	155.1	217.2	166.2

1/ 1,000 short tons, raw value. Quarterly data shown at end of each quarter. 2/ Net imports of green & processed coffee. 3/ Crop year July-June for flue-cured, Oct.-Sept. for burley. 4/ Taxable removals. — = not available.

Information contacts: sugar, Peter Buzzanell (202) 219-0886, coffee, Fred Gray (202) 219-0888, tobacco, Verner Grise (202) 219-0890.



## World Agriculture

**Table 23.—World Supply & Utilization of Major Crops, Livestock & Products**

	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92 P	1992/93 F
	Million units						
<b>Wheat</b>							
Area (hectares)	228.1	219.7	217.4	225.9	231.4	221.1	221.0
Production (metric tons)	524.1	495.7	495.0	532.9	588.1	542.3	553.1
Exports (metric tons) 1/	90.7	107.1	97.9	97.0	94.5	108.2	101.2
Consumption (metric tons) 2/	515.9	524.9	525.4	529.9	565.2	554.6	549.3
Ending stocks (metric tons) 3/	177.8	148.4	118.0	120.9	143.9	131.5	135.3
<b>Coarse grains</b>							
Area (hectares)	335.3	323.1	323.3	320.8	313.8	319.2	320.0
Production (metric tons)	822.2	783.9	721.1	792.5	819.9	800.8	838.8
Exports (metric tons) 1/	83.5	84.0	96.1	102.1	87.9	94.3	88.7
Consumption (metric tons) 2/	798.0	805.0	785.5	817.4	807.6	808.2	818.7
Ending stocks (metric tons) 3/	235.8	214.4	150.0	125.0	137.6	132.2	150.3
<b>Rice, milled</b>							
Area (hectares)	145.1	141.7	145.4	146.7	147.1	145.3	148.5
Production (metric tons)	318.7	314.5	330.0	342.6	351.2	347.3	349.5
Exports (metric tons) 4/	12.9	11.9	15.1	12.1	12.7	14.3	13.9
Consumption (metric tons) 2/	320.7	320.0	327.8	335.8	346.1	351.4	353.4
Ending stocks (metric tons) 3/	51.4	45.9	48.3	55.1	60.4	58.5	52.9
<b>Total grains</b>							
Area (hectares)	708.5	684.5	686.1	693.3	692.3	685.6	687.5
Production (metric tons)	1,663.0	1,594.1	1,546.1	1,668.0	1,759.2	1,690.4	1,739.4
Exports (metric tons) 1/	187.1	203.0	209.1	211.2	195.1	218.8	203.8
Consumption (metric tons) 2/	1,632.6	1,649.9	1,638.5	1,683.1	1,718.8	1,712.2	1,721.4
Ending stocks (metric tons) 3/	484.8	408.7	318.3	301.0	341.9	320.2	338.5
<b>Oilseeds</b>							
Crush (metric tons)	181.8	168.4	184.5	172.0	177.4	184.7	184.6
Production (metric tons)	194.9	210.5	201.7	212.5	215.9	223.0	224.2
Exports (metric tons)	37.7	39.5	31.5	35.5	33.0	36.7	36.7
Ending stocks (metric tons)	23.3	24.0	22.1	23.3	22.8	21.2	22.4
<b>Meats</b>							
Production (metric tons)	110.7	115.4	111.3	117.1	119.8	125.0	125.3
Exports (metric tons)	36.7	35.8	37.4	38.5	39.5	41.3	39.8
<b>Oils</b>							
Production (metric tons)	50.4	53.3	53.3	57.2	58.2	60.2	608.0
Exports (metric tons)	18.9	17.5	18.1	19.8	20.2	20.0	20.1
<b>Cotton</b>							
Area (hectares)	29.2	30.8	33.7	31.5	33.0	34.8	33.4
Production (bales)	70.6	81.1	84.4	79.8	88.9	95.9	87.3
Exports (bales)	25.9	23.1	25.8	23.9	22.9	22.5	22.7
Consumption (bales)	82.8	84.1	85.3	86.7	85.4	85.0	86.7
Ending stocks (bales)	35.9	33.0	32.1	26.5	28.8	40.0	44.9
	1986	1987	1988	1989	1990	1991 P	1992 F
	Million						
<b>Red meat</b>							
Production (metric tons)	109.8	112.8	116.5	117.9	120.0	119.1	118.8
Consumption (metric tons)	108.6	110.8	114.5	116.5	117.8	117.1	117.3
Exports (metric tons) 1/	6.6	6.7	7.1	7.2	7.3	7.7	7.7
<b>Poultry 5/</b>							
Production (metric tons)	30.1	31.3	32.7	34.0	35.8	37.8	39.4
Consumption (metric tons)	29.7	30.8	31.9	33.1	34.8	37.0	38.7
Exports (metric tons) 1/	1.3	1.5	1.8	1.8	2.0	2.1	2.3
<b>Dairy</b>							
Milk production (metric tons)	425.9	425.7	429.0	434.9	442.0	429.2	425.3

1/ Excludes intra-EC trade. 2/ Where stocks data not available (excluding USSR), consumption includes stock changes. 3/ Stocks data are based on differing marketing years & do not represent levels at a given date. Data not available for all countries; includes estimated change in USSR grain stocks but not absolute level. 4/ Calendar year data. 1987 data correspond with 1986/87, etc. 5/ Poultry excludes the Peoples Republic of China before 1988. P = preliminary. F = forecast.

Information contacts: Crops, Carol Whitton (202) 219-0824; red meat & poultry, Linda Bailey (202) 219-1285; dairy, Sara Short (202) 219-0770.

## U.S. Agricultural Trade

**Table 24.—Prices of Principal U.S. Agricultural Trade Products**

	Annual		1991		1992					
	1989	1990	1991	Sept	Apr	May	June	July	Aug	Sept
<b>Export commodities</b>										
Wheat, f.o.b. vessel, Gulf ports (\$/bu.)	4.65	3.72	3.52	3.63	4.38	4.09	4.04	3.72	3.50	3.79
Corn, f.o.b. vessel, Gulf ports (\$/bu.)	2.85	2.79	2.75	2.77	2.79	2.80	2.81	2.61	2.49	2.50
Grain sorghum, f.o.b. vessel, Gulf ports (\$/bu.)	2.70	2.65	2.69	2.71	2.79	2.75	2.70	2.42	2.41	2.41
Soybeans, f.o.b. vessel, Gulf ports (\$/bu.)	7.06	6.24	6.05	6.26	6.05	6.26	6.36	6.01	5.86	5.82
Soybean oil, Decatur (cts./lb.)	20.21	22.75	20.14	20.02	18.84	20.06	20.68	18.73	17.76	18.10
Soybean meal, Decatur (\$/ton)	216.59	169.37	172.90	192.23	174.43	183.40	181.38	174.34	174.31	174.33
Cotton, 7-market avg. spot (cts./lb.)	63.78	71.25	69.69	62.54	54.97	55.45	58.82	60.93	57.56	53.49
Tobacco, avg. price at auction (cts./lb.)	166.81	170.57	179.23	178.48	162.04	162.04	162.04	155.02	165.49	182.51
Rice, f.o.b. mill, Houston (\$/cwt)	15.68	15.52	16.46	17.00	17.50	17.25	16.83	16.50	16.50	16.50
Inedible tallow, Chicago (cts./lb.)	14.71	13.54	13.28	13.50	13.25	13.75	13.98	14.75	15.42	15.25
<b>Import commodities</b>										
Coffee, N.Y. spot (\$/lb.)	1.04	0.81	0.71	0.88	0.49	0.47	0.46	0.44	0.38	0.40
Rubber, N.Y. spot (cts./lb.)	50.65	46.28	45.73	44.45	45.86	46.41	48.57	46.78	47.05	46.86
Cocoa beans, N.Y. (\$/lb.)	0.55	0.55	0.52	0.56	0.44	0.42	0.40	0.47	0.50	0.47

Information contact: Mary Teymourian (202) 219-0824.

**Table 25.—Indexes of Real Trade-Weighted Dollar Exchange Rates <sup>1/</sup>**

	1991		1992									
	Nov	Dec	Jan	Feb	Mar	Apr	May P	June P	July P	Aug P	Sept P	Oct P
	1985 = 100											
Total U.S. trade <sup>2/</sup>	63.9	62.4	62.4	63.7	68.6	65.0	63.9	59.8	59.6	59.0	58.6	57.1
Agricultural trade												
U.S. markets	77.1	76.3	75.5	76.2	80.7	78.0	76.4	74.6	72.9	71.9	71.1	69.6
U.S. competitors	76.3	76.4	76.2	76.7	80.9	78.5	76.0	72.2	72.9	70.1	69.2	67.4
Wheat												
U.S. markets	96.8	96.8	95.4	95.8	100.9	100.4	98.2	96.2	94.2	93.6	93.0	91.6
U.S. competitors	69.4	69.5	70.0	71.2	68.7	70.9	71.1	69.8	69.6	69.7	70.5	68.8
Soybeans												
U.S. markets	65.0	63.7	63.1	63.7	66.2	65.5	63.6	61.9	61.4	60.8	60.4	59.6
U.S. competitors	56.3	57.4	57.1	57.0	57.7	57.4	56.5	55.8	56.0	55.5	55.1	54.7
Corn												
U.S. markets	70.1	69.4	68.3	69.1	71.1	70.6	67.7	67.7	67.4	67.1	66.8	66.3
U.S. competitors	61.3	60.6	60.2	60.8	61.4	60.6	60.0	57.7	57.3	56.8	56.2	55.4
Cotton												
U.S. markets	72.6	72.3	71.6	72.4	75.8	74.0	72.8	71.5	71.2	71.1	71.0	70.4
U.S. competitors	97.7	97.1	96.1	95.9	95.8	95.3	95.1	67.9	85.6	82.9	80.2	77.2

<sup>1/</sup> Real indexes adjust nominal exchange rates for differences in rates of inflation, to avoid the distortion caused by high-inflation countries. A higher value means the dollar has appreciated. See the October 1988 issue of Agricultural Outlook for a discussion of the calculations and the weights used. <sup>2/</sup> Federal Reserve Board Index of trade-weighted value of the U.S. dollar against 10 major currencies. Weights are based on relative importance in world financial markets. P = preliminary.

Information contact: Tim Baxter, (202) 219-0718.

**Table 26.—Trade Balance**

	Fiscal year <sup>1/</sup>								Aug
	1985	1986	1987	1988	1989	1990	1991	1992 F	1992
	\$ million								
<b>Exports</b>									
Agricultural	31,201	26,312	27,676	35,316	39,590	40,220	37,609	41,500	3,090
Nonagricultural	179,236	179,291	202,911	258,656	301,269	326,059	356,682	—	29,825
Total <sup>2/</sup>	210,437	205,603	230,787	293,972	340,859	366,279	394,291	—	32,915
<b>Imports</b>									
Agricultural	19,740	20,884	20,650	21,014	21,476	22,560	22,588	23,500	1,880
Nonagricultural	313,722	342,646	367,374	409,138	441,075	458,101	463,720	—	41,947
Total <sup>3/</sup>	333,462	363,730	388,024	430,152	462,551	480,661	486,308	—	43,827
<b>Trade balance</b>									
Agricultural	11,461	5,428	7,226	14,302	18,114	17,660	15,021	18,000	1,210
Nonagricultural	-134,486	-163,555	-164,463	-150,482	-139,806	-132,042	-107,038	—	-12,122
Total	-123,025	-158,127	-157,237	-136,180	-121,692	-114,382	-92,017	—	-10,912

<sup>1/</sup> Fiscal years begin October 1 & end September 30. Fiscal year 1991 began Oct. 1, 1990 & ended Sept. 30, 1991. <sup>2/</sup> Domestic exports including Department of Defense shipments (F.A.S. value). <sup>3/</sup> Imports for consumption (customs value). F = forecast — = not available.

Information contact: Stephen MacDonald (202) 219-0822.



Table 27.—U.S. Agricultural Exports &amp; Imports

	Fiscal year*			Aug	Fiscal year*			Aug
	1990	1991	1992 F	1992	1990	1991	1992 F	1992
	1,000 units				\$ million			
EXPORTS								
Animals, live (no.) 1/	685	1,235	--	113	361	546	--	34
Meats & preps., excl. poultry (mt)	873	937	2/ 900	91	2,457	2,774	--	267
Dairy products (mt) 1/	105	43	--	18	358	293	600	64
Poultry meats (mt)	563	628	700	75	679	737	--	82
Fats, oils, & greases (mt)	1,265	1,169	1,300	111	459	419	--	41
Hides & skins incl. furskins	--	--	--	--	1,794	1,453	--	115
Cattle hides, whole (no.) 1/	23,920	21,608	--	1,936	1,412	1,193	--	103
Mink pelts (no.) 1/	5,128	3,941	--	31	116	74	--	1
Grains & feeds (mt)	112,925	100,016	--	7,882	15,698	12,206	3/ 13,700	1,091
Wheat (mt)	26,068	26,708	33,500	2,687	4,212	2,857	4/ 4,300	370
Wheat flour (mt)	851	1,076	900	56	198	202	--	13
Rice (mt)	2,491	2,401	2,200	132	830	749	700	48
Feed grains, incl. products (mt)	69,384	52,337	48,200	3,999	8,094	5,769	5,700	432
Feeds & fodders (mt)	11,153	16,389	5/ 11,500	886	1,828	1,914	--	160
Other grain products (mt)	978	1,105	--	122	536	695	--	70
Fruits, nuts, & preps. (mt)	2,872	2,849	--	262	2,788	3,038	--	268
Fruit juices incl. froz. (1,000 hectoliters) 1/	5,975	6,310	--	628	328	338	--	34
Vegetables & preps. (mt)	2,243	2,589	--	145	2,079	2,597	--	192
Tobacco, unmanufactured (mt)	218	239	200	10	1,359	1,533	1,500	59
Cotton, excl. linters (mt)	1,886	1,565	1,600	65	2,704	2,605	2,300	91
Seeds (mt)	656	514	--	63	573	618	700	42
Sugar, cane or beet (mt)	447	589	--	38	187	219	--	12
Oilseeds & products (mt)	23,745	21,976	--	1,802	6,099	5,607	7,200	472
Oilseeds (mt)	17,669	15,633	--	1,124	4,239	3,811	--	277
Soybeans (mt)	17,229	15,139	18,600	1,068	3,942	3,465	4,200	239
Protein meal (mt)	4,780	5,292	--	509	1,032	1,073	--	102
Vegetable oils (mt)	1,296	1,051	--	169	829	723	--	93
Essential oils (mt)	14	13	--	1	182	183	--	16
Other	91	92	--	6	2,115	2,441	--	212
Total	147,583	133,219	140,000	10,569	40,220	37,809	41,500	3,090
IMPORTS								
Animals, live (no.) 1/	2,938	3,168	--	191	1,053	1,131	1,200	85
Meats & preps., excl. poultry (mt)	1,142	1,191	--	88	2,848	3,016	--	205
Beef & veal (mt)	754	811	800	62	1,842	2,024	2,100	143
Pork (mt)	340	322	260	22	888	866	800	52
Dairy products (mt) 1/	255	231	--	19	951	807	800	74
Poultry & products 1/	--	--	--	--	129	119	--	11
Fats, oils, & greases (mt)	19	33	--	5	15	19	--	2
Hides & skins, incl. furskins 1/	--	--	--	--	182	153	--	12
Wool, unmanufactured (mt)	47	50	--	3	187	175	--	10
Grains & feeds (mt)	3,481	4,163	5,000	477	1,181	1,271	1,500	145
Fruits, nuts, & preps., excl. juices (mt)	5,331	5,648	6,000	398	2,486	2,740	--	195
Bananas & plantains (mt)	3,236	3,397	3,650	294	926	992	1,100	88
Fruit juices (1,000 hectoliters) 1/	33,933	27,948	30,000	2,059	1,002	737	--	62
Vegetables & preps. (mt)	2,243	2,180	--	130	2,284	2,185	2,100	141
Tobacco, unmanufactured (mt)	193	215	220	31	588	698	800	90
Cotton, unmanufactured (mt)	30	18	--	1	20	16	--	1
Seeds (mt)	171	169	150	9	164	173	200	15
Nursery stock & cut flowers 1/	--	--	--	--	519	538	--	51
Sugar, cane or beet (mt)	1,769	1,785	--	148	734	717	--	58
Oilseeds & products (mt)	2,016	2,077	--	231	964	959	1,100	123
Oilseeds (mt)	534	445	--	35	206	151	--	11
Protein meal (mt)	310	412	--	53	48	57	--	7
Vegetable oils (mt)	1,171	1,220	--	143	710	750	--	104
Beverages excl. fruit juices (1,000 hectoliters) 1/	13,543	12,987	--	1,248	1,867	1,858	--	177
Coffee, tea, cocoa, spices	2,202	2,025	2,300	187	3,465	3,280	--	233
Coffee, incl. products (mt)	1,290	1,116	1,250	104	1,997	1,831	1,800	117
Cocoa beans & products (mt)	698	680	800	60	1,042	1,005	1,100	82
Rubber & allied gums (mt)	840	792	860	79	712	664	700	67
Other	--	--	--	--	1,229	1,332	--	125
Total	--	--	--	--	22,560	22,588	23,500	1,880

\*Fiscal years begin Oct. 1 & end Sept. 30. Fiscal year 1992 began Oct. 1, 1991 & ended Sept. 30, 1992. 1/ Not included in total volume and also other dairy products for 1989 & 1990. 2/ Forecasts for footnoted items 2/-6/ are based on slightly different groups of commodities. Fiscal 1990 exports of categories used in the 1991 forecasts were 2/ 676,000 m. tons. 3/ 16,014 million. 4/ 4,426 million i.e. Includes flour. 5/ 11,065 million m. tons. 6/ Less than \$500. F = forecast. -- = not available.

Information contact: Stephen MacDonald (202) 219-0822

Table 28.—U.S. Agricultural Exports by Region

Region & country	Fiscal year*			Aug	Change from year* earlier			Aug
	1990	1991	1992 F	1992	1990	1991	1992 F	1992
	\$ million				Percent			
WESTERN EUROPE	7,309	7,312	7,600	439	4	0	4	2
European Community (EC-12)	6,816	6,776	7,100	399	4	-1	4	4
Belgium-Luxembourg	426	464	—	31	-1	9	—	-4
France	469	571	—	33	-1	22	—	5
Germany	1,096	1,135	—	72	17	4	—	-12
Italy	702	675	—	23	15	-4	—	19
Netherlands	1,636	1,561	—	90	-11	-5	—	17
United Kingdom	760	883	—	74	3	16	—	2
Portugal	338	251	—	18	10	-26	—	64
Spain, incl. Canary Islands	976	855	—	31	15	-12	—	9
Other Western Europe	493	536	500	41	-3	9	0	-11
Switzerland	171	194	—	9	3	13	—	-10
EASTERN EUROPE	533	306	200	17	35	-43	-33	-30
Poland	101	46	—	5	124	-54	—	210
Yugoslavia	129	74	—	0	69	-43	—	-100
Romania	210	82	—	8	239	-61	—	-27
USSR	3,006	1,758	2,700	188	-9	-42	50	11
ASIA	18,174	16,094	17,400	1,330	-3	-11	8	10
West Asia (Mideast)	1,996	1,430	1,700	151	-12	-28	21	68
Turkey	260	224	—	12	9	-14	—	110
Iraq	497	0	0	0	-37	-100	0	0
Israel, incl. Gaza & W. Bank	285	287	—	36	-14	1	—	221
Saudi Arabia	502	536	600	44	4	7	20	-1
South Asia	723	375	—	89	-38	-48	—	130
Bangladesh	120	67	—	5	-44	-44	—	-41
India	116	95	—	20	-52	-18	—	406
Pakistan	391	144	200	45	-35	-63	100	121
China	909	668	800	19	-39	-27	29	-55
Japan	8,155	7,736	8,200	631	0	-5	6	7
Southeast Asia	1,184	1,239	—	101	21	5	—	20
Indonesia	277	279	—	24	29	1	—	89
Philippines	351	373	400	40	2	6	0	26
Other East Asia	5,206	4,646	4,900	338	13	-11	7	-6
Taiwan	1,819	1,739	1,900	124	14	-4	12	-21
Korea, Rep.	2,701	2,159	2,200	154	10	-20	5	1
Hong Kong	685	745	800	59	19	9	14	15
AFRICA	2,011	1,884	2,200	224	-12	-6	16	37
North Africa	1,527	1,388	1,400	101	-15	-9	0	-13
Morocco	164	129	—	20	-24	-21	—	148
Algeria	491	479	500	18	-11	-2	0	-47
Egypt	763	692	700	56	-20	-9	0	-17
Sub-Saharan	484	496	800	123	0	2	60	155
Nigeria	32	44	—	1	7	37	—	-70
Rep. S. Africa	81	74	—	64	43	-9	—	708
LATIN AMERICA & CARIBBEAN	5,155	5,500	6,400	472	-5	7	16	-2
Brazil	105	271	200	8	-30	159	-33	-87
Caribbean Islands	1,008	1,010	—	72	0	0	—	-12
Central America	463	497	—	29	3	7	—	-49
Colombia	147	124	—	11	6	-18	—	-28
Mexico	2,666	2,884	3,700	257	-3	8	28	13
Peru	187	150	—	11	132	-20	—	16
Venezuela	345	307	400	42	-41	-11	33	84
CANADA	3,715	4,409	4,700	389	70	19	7	12
OCEANIA	317	346	400	31	18	9	33	31
TOTAL	40,220	37,809	41,500	3,090	2	-6	11	9
Developed countries	19,805	20,104	21,400	1,585	10	2	7	13
Less developed countries	15,966	14,769	18,400	1,486	-3	-7	12	6
Centrally planned countries	4,448	2,736	3,700	20	-15	-38	37	-54

\* Fiscal years begin Oct. 1 & end Sept. 30. Fiscal year 1992 began Oct. 1, 1991 & ended Sept. 30, 1992. F = forecast. — = not available.  
 Note: Adjusted for transshipments through Canada

Information contact: Stephen MacDonald (202) 219-0822.



## Farm Income

**Table 29.—Farm Income Statistics**

	Calendar year										1992 F
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	
	\$ billion										
1. Farm receipts	147.8	141.9	147.7	150.1	140.2	148.4	158.2	169.3	177.1	175	170 to 178
Crops (incl. net CCC loans)	72.3	67.2	69.9	74.3	63.7	65.8	71.6	76.9	80.0	81	80 to 83
Livestock	70.3	69.6	72.9	69.8	71.6	76.0	79.4	84.1	89.9	87	84 to 85
Farm related 1/	5.2	5.1	4.9	6.0	5.7	6.6	7.1	8.2	7.2	8	8 to 8
2. Direct Government payments	3.5	9.3	8.4	7.7	11.8	18.7	14.5	10.9	9.3	8	9 to 10
Cash payments	3.5	4.1	4.0	7.6	8.1	8.6	7.1	9.1	8.4	8	9 to 10
Value of PLK commodities	0.0	5.2	4.5	0.1	3.7	10.1	7.4	1.7	0.9	0	0 to 1
3. Gross cash income (1+2) 2/	151.3	151.1	156.1	157.9	152.8	165.1	171.7	180.2	186.4	183	180 to 185
4. Nonmoney income 3/	14.3	13.8	5.9	6.6	5.5	5.6	6.1	6.2	6.1	6	6 to 7
5. Value of inventory change	-1.4	-10.9	6.0	-2.3	-2.2	-2.3	-3.4	4.8	3.5	1	1 to 5
6. Total gross farm income (3+4+5)	164.1	153.9	168.0	161.2	156.1	168.5	175.4	191.1	196.0	189	188 to 195
7. Cash expenses 4/	113.2	112.8	116.7	110.7	105.0	109.4	114.6	121.2	125.2	125	125 to 129
8. Total expenses	140.3	139.6	141.9	132.4	125.1	126.8	134.3	141.2	145.1	145	145 to 149
9. Net cash income (4-7)	38.1	38.4	37.4	47.1	47.8	55.8	58.1	58.9	61.3	58	54 to 57
10. Net farm income (6-8)	23.8	14.2	26.1	28.8	31.0	39.7	41.1	49.9	51.0	45	42 to 47
Deflated (1987\$)	28.6	16.3	28.7	30.5	32.0	39.7	39.5	46.0	45.0	38	34 to 40

1/ Income from machine hire, custom work, sales of forest products, & other miscellaneous cash sources. 2/ Numbers in parentheses indicate the combination of items required to calculate a given item. 3/ Value of home consumption of self-produced food & imputed gross rental value of farm dwellings. 4/ Excludes capital consumption, perquisites to hired labor, & farm household expenses. Total may not add because of rounding. F = forecast.

Information contact: Robert McElroy (202) 219-0800.

**Table 30.—Balance Sheet of the U.S. Farming Sector**

	Calendar year 1/										1992 F
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	
	\$ billion										
<b>Assets</b>											
Real estate	750.0	753.4	661.8	586.2	542.3	578.9	595.5	615.5	627.5	623	620 to 630
Non-real estate	194.5	189.8	195.2	186.5	182.1	193.7	205.4	213.4	219.0	219	215 to 225
Livestock & poultry	53.0	49.5	49.5	46.3	47.8	58.0	62.2	66.2	70.9	68	68 to 72
Machinery & motor vehicles	86.0	85.8	85.0	82.9	81.5	80.0	81.0	84.5	84.3	84	81 to 85
Crops stored 2/	25.8	23.6	26.1	22.9	16.3	17.5	23.3	23.4	22.8	24	21 to 25
Purchased inputs	—	—	2.0	1.2	2.1	3.2	3.5	2.6	2.8	2	2 to 4
Financial assets	29.7	30.9	32.6	33.3	34.5	35.1	35.4	36.8	38.3	40	39 to 43
Total farm assets	944.5	943.2	857.0	772.7	724.4	772.6	800.9	828.9	846.5	842	845 to 850
<b>Liabilities</b>											
Real estate debt 3/	101.8	103.2	106.7	100.1	90.4	82.4	77.6	75.4	73.7	74	73 to 77
Non-real estate debt 4/	87.0	87.9	87.1	77.5	66.6	62.0	61.7	61.8	63.1	64	63 to 67
Total farm debt	188.8	191.1	193.8	177.6	157.0	144.4	139.4	137.2	136.8	139	136 to 142
Total farm equity	755.7	752.2	663.3	595.1	567.5	628.2	661.6	691.8	709.8	703	705 to 715
	Percent										
<b>Selected ratios</b>											
Debt-to-assets	20.0	20.3	22.6	23.0	21.7	18.7	17.4	16.6	16.2	17	16 to 17
Debt-to-equity	25.0	25.5	29.2	29.8	27.7	23.0	21.1	19.8	19.3	20	19 to 20
Debt-to-net cash income	496	498	518	377	328	259	240	233	223	240	250 to 260

1/ As of Dec. 31. 2/ Non-CCC crops held on farms plus value above loan rates for crops held under CCC. 3/ Excludes debt on operator dwellings, but includes CCC storage and drying facilities loans. 4/ Excludes debt for nonfarm purposes. F = forecast.

Information contacts: Ken Erickson or Jim Ryan (202) 219-0798

Table 31.—Cash Receipts From Farm Marketings, by State

Region & State	Livestock & products				Crops 1/				Total 1/			
	1990	1991	July 1992	August 1992	1990	1991	July 1992	August 1992	1990	1991	July 1992	August 1992
	\$ million 2/											
<b>NORTH ATLANTIC</b>												
Maine	258	252	20	20	234	192	9	15	493	445	29	35
New Hampshire	63	63	5	5	80	80	5	8	143	143	10	13
Vermont	397	398	34	34	60	66	9	3	456	433	43	37
Massachusetts	125	121	10	10	321	355	22	31	446	478	33	41
Rhode Island	14	13	1	1	58	58	5	2	71	71	6	3
Connecticut	223	209	18	17	250	255	17	15	474	463	34	32
New York	1,971	1,782	182	160	986	1,087	90	127	2,858	2,868	253	288
New Jersey	196	197	17	17	455	464	68	60	650	660	84	76
Pennsylvania	2,714	2,470	191	230	1,043	1,033	71	73	3,757	3,503	282	302
<b>NORTH CENTRAL</b>												
Ohio	1,847	1,681	131	122	2,299	2,212	193	125	4,146	3,893	323	247
Indiana	2,040	1,893	124	133	2,871	2,582	160	119	4,911	4,475	284	252
Illinois	2,452	2,344	158	192	5,338	5,165	357	315	7,789	7,509	516	507
Michigan	1,407	1,288	110	105	1,720	1,793	180	132	3,126	3,081	300	237
Wisconsin	4,573	4,215	399	386	1,161	1,234	112	139	5,734	5,449	510	525
Minnesota	3,749	3,577	277	288	3,135	3,359	305	328	6,885	6,936	582	617
Iowa	5,862	5,721	338	406	4,420	4,458	371	341	10,282	10,179	709	747
Missouri	2,329	2,203	142	163	1,660	1,658	156	106	3,989	3,861	298	268
North Dakota	801	699	28	36	1,730	1,857	91	184	2,532	2,556	118	220
South Dakota	2,294	2,176	94	119	965	1,088	78	113	3,259	3,264	172	231
Nebraska	6,076	5,934	378	511	2,832	2,888	262	215	8,708	8,821	640	726
Kansas	4,996	4,802	415	476	2,024	2,133	349	147	7,020	6,935	764	623
<b>SOUTHERN</b>												
Delaware	480	438	37	38	176	181	10	20	656	620	47	58
Maryland	823	779	64	87	542	554	56	36	1,384	1,332	121	123
Virginia	1,383	1,363	103	117	739	732	72	61	2,122	2,095	175	177
West Virginia	269	253	19	22	70	77	6	9	339	330	25	30
North Carolina	2,658	2,608	191	235	2,268	2,316	210	358	4,926	4,924	401	592
South Carolina	581	549	36	43	588	677	63	88	1,169	1,225	99	131
Georgia	2,270	2,153	169	184	1,596	1,825	87	157	3,866	3,976	256	341
Florida	1,261	1,172	96	87	4,483	4,969	221	199	5,744	6,141	318	286
Kentucky	1,699	1,704	282	101	1,404	1,475	49	40	3,103	3,179	331	141
Tennessee	1,111	1,045	64	82	950	933	33	40	2,061	1,978	98	122
Alabama	2,193	2,219	169	198	632	759	31	27	2,826	2,978	200	225
Mississippi	1,322	1,275	120	118	1,111	1,147	18	14	2,433	2,422	137	132
Arkansas	2,701	2,680	227	252	1,555	1,631	41	32	4,256	4,311	268	284
Louisiana	633	621	60	62	1,296	1,172	21	36	1,929	1,793	80	99
Oklahoma	2,342	2,767	191	192	1,200	1,040	143	102	3,542	3,808	334	295
Texas	7,751	7,914	684	729	4,081	4,212	344	408	11,831	12,128	1,028	1,137
<b>WESTERN</b>												
Montana	888	790	23	18	766	741	52	74	1,654	1,531	75	93
Idaho	1,137	1,073	87	95	1,748	1,543	72	117	2,885	2,616	159	212
Wyoming	595	643	17	29	159	170	9	20	754	813	25	49
Colorado	3,073	2,664	246	218	1,144	1,097	93	104	4,216	3,761	339	321
New Mexico	1,001	1,019	60	61	482	482	56	56	1,483	1,501	116	117
Arizona	813	786	57	69	1,097	1,104	47	26	1,910	1,890	104	95
Utah	587	553	51	46	175	178	23	19	762	731	74	65
Nevada	209	187	12	18	115	89	5	6	324	276	17	24
Washington	1,396	1,290	110	116	2,402	2,657	154	250	3,798	3,947	264	366
Oregon	753	824	68	68	1,620	1,631	175	179	2,374	2,454	243	247
California	5,533	5,272	423	419	13,624	12,615	997	970	19,158	17,687	1,420	1,389
Alaska	6	6	1	1	19	20	2	2	27	27	2	3
Hawaii	86	91	7	8	514	506	43	43	600	597	50	50
<b>UNITED STATES</b>	<b>89,923</b>	<b>86,746</b>	<b>6,724</b>	<b>7,144</b>	<b>79,998</b>	<b>80,550</b>	<b>6,053</b>	<b>6,091</b>	<b>169,921</b>	<b>167,292</b>	<b>12,776</b>	<b>13,231</b>

1/ Sales of farm products include receipts from commodities placed under nonrecourse CCC loans, plus additional gains realized on redemptions during the period. 2/ Estimates as of end of current month. Totals may not add because of rounding.

Information contact: Roger Strickland (202) 219-0806.



Table 32.—Cash Receipts From Farming

	Annual						1991	1992				
	1986	1987	1988	1989	1990	1991	Aug	Apr	May	June	July	Aug
	\$ million											
Farm marketings <sup>1</sup> & CCC loans <sup>2</sup>	135,361	141,844	151,102	161,027	169,920	167,292	13,421	12,138	11,593	11,891	12,778	13,234
Livestock & products	71,553	75,993	79,438	84,148	89,921	88,745	7,171	6,637	7,133	6,853	6,723	7,142
Meat animals	39,081	44,478	46,492	48,857	51,911	51,093	4,072	3,792	3,998	3,724	3,356	3,878
Dairy products	17,724	17,727	17,841	19,396	20,210	18,114	1,524	1,568	1,727	1,701	1,782	1,724
Poultry & eggs	12,701	11,515	12,888	15,372	15,243	15,063	1,389	1,087	1,235	1,242	1,229	1,353
Other	2,048	2,274	2,437	2,524	2,657	2,476	185	188	173	187	376	187
Crops	63,807	65,851	71,883	76,879	78,999	80,547	5,250	5,501	4,459	5,038	6,055	6,092
Food grains	5,723	5,790	7,474	8,247	7,512	8,823	643	392	259	872	1,133	896
Feed crops	16,993	14,635	14,298	17,054	18,690	19,012	1,684	1,250	848	1,184	1,440	1,443
Cotton (lint & seed)	3,371	4,189	4,546	5,033	5,489	5,589	219	103	68	86	42	174
Tobacco	1,894	1,818	2,083	2,415	2,741	2,886	480	10	0	0	223	466
Oil-bearing crops	10,614	11,283	13,500	11,866	12,294	12,547	717	745	576	684	658	696
Vegetables & melons	8,859	9,888	9,788	11,534	11,455	11,293	1,087	1,088	1,081	883	867	1,186
Fruits & tree nuts	7,252	8,065	9,202	9,296	9,534	9,882	715	556	485	877	961	724
Other	9,101	10,178	10,772	11,435	12,284	12,514	706	1,376	1,043	692	731	706
Government payments	11,813	16,747	14,480	10,887	9,298	8,214	66	1,722	729	141	80	55
Total	147,174	158,591	165,582	171,914	179,218	175,506	13,487	13,860	12,322	12,032	12,858	13,289

<sup>1</sup> Sales of farm products include receipts from commodities placed under nonrecourse CCC loans, plus additional gains realized on redemptions during the period.

Information contact: Roger Strickland (202) 219-0808.

Table 33.—Farm Production Expenses

	Calendar year									
	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992 F
	\$ million									
Feed purchased	20,573	19,383	18,949	17,472	17,463	20,393	21,002	20,708	19,800	19,000 to 21,000
Livestock & poultry purchased	8,818	9,487	9,184	9,758	11,842	12,764	13,138	14,832	14,358	13,000 to 15,000
Seed purchased	2,690	3,386	3,128	3,188	3,259	3,359	3,558	3,576	3,975	3,000 to 5,000
Farm-origin inputs	32,081	32,256	29,261	30,418	32,564	36,515	37,698	39,114	38,133	36,000 to 40,000
Fertilizer & lime	7,055	8,361	7,513	6,820	6,453	6,947	7,249	7,135	7,419	7,000 to 9,000
Fuels & oils	7,211	7,296	6,436	6,310	4,957	4,903	4,798	5,730	5,472	5,000 to 8,000
Electricity	1,982	2,060	1,878	1,795	2,156	2,289	2,643	2,480	2,483	2,000 to 3,000
Pesticides	3,870	4,888	4,334	4,324	4,512	4,577	5,437	5,730	6,313	6,000 to 7,000
Manufactured inputs	20,118	22,404	20,180	18,249	18,077	18,716	20,027	21,063	21,667	21,000 to 25,000
Short-term interest	10,815	10,396	8,735	7,367	6,767	6,797	8,910	8,911	8,815	5,000 to 7,000
Real estate interest 1/	10,815	10,733	9,878	9,131	8,187	7,885	7,781	7,607	7,319	6,000 to 8,000
Total interest charges	21,430	21,129	18,613	16,498	14,954	14,682	14,691	14,518	13,934	13,000 to 15,000
Repair & maintenance 1/	6,529	6,416	6,370	6,426	6,760	8,858	7,340	7,347	7,234	7,000 to 8,000
Contract & hired labor	8,938	9,427	10,008	9,464	9,975	10,441	11,110	12,541	12,595	11,000 to 15,000
Machine hire & custom work	2,213	2,568	2,354	2,099	2,105	2,354	2,662	2,633	2,722	2,000 to 3,000
Marketing, storage, & transportation	3,904	4,012	4,127	3,652	4,078	3,450	4,080	4,046	4,532	4,000 to 5,000
Misc. operating expenses 1/ 2/	10,861	10,331	10,010	9,759	11,171	11,791	12,522	12,364	13,256	10,000 to 13,000
Other operating expenses	32,545	32,751	32,888	31,420	34,089	34,894	37,734	38,931	40,339	39,000 to 45,000
Capital consumption 1/	23,758	20,847	19,299	17,788	17,092	17,344	17,780	17,494	17,352	17,000 to 18,000
Taxes 1/	4,465	4,337	4,542	4,612	4,853	4,848	5,127	5,623	5,980	5,000 to 7,000
Net rent to nonoperator landlord	5,211	8,150	7,690	6,099	7,124	7,290	8,187	8,334	7,484	7,000 to 8,000
Other overhead expenses	33,434	33,334	31,531	28,499	29,069	29,482	31,094	31,451	30,796	29,000 to 33,000
Total production expenses	139,608	141,873	132,433	125,084	128,772	134,285	141,244	145,077	144,889	145,000 to 149,000

1/ Includes operator dwellings. 2/ Beginning in 1982, miscellaneous operating expenses include other livestock purchases, dairy assessments & feeding fees paid by nonoperators. Totals may not add because of rounding. F = forecast.

Information contacts: Chris McGath (202) 219-0804, Robert McElroy (202) 219-0800.

Table 34.—CCC Net Outlays by Commodity &amp; Function

COMMODITY/PROGRAM	Fiscal year									
	1984	1986	1986	1987	1988	1989	1990	1991	1992 E	1993 E
	\$ million									
<b>COMMODITY/PROGRAM</b>										
Feed grains										
Corn	-934	4,403	10,524	12,346	8,227	2,863	2,450	2,387	1,949	4,165
Grain sorghum	76	463	1,185	1,203	764	467	361	243	187	361
Barley	89	336	471	394	57	45	-93	71	174	167
Oats	5	2	26	17	-2	1	-5	12	33	32
Corn & oat products	6	7	5	7	7	8	8	9	9	8
Total feed grains	-758	5,211	12,211	13,967	9,053	3,384	2,721	2,722	2,352	4,733
Wheat	2,536	4,691	3,440	2,836	678	53	808	2,958	1,608	1,751
Rice	333	990	947	906	128	631	667	867	698	736
Upland cotton	244	1,553	2,142	1,766	666	1,461	-79	382	1,271	1,893
Tobacco	346	455	253	-346	-453	-367	-307	-143	-32	38
Dairy	1,502	2,085	2,337	1,166	1,295	679	505	839	199	131
Soybeans	-585	711	1,597	-476	-1,676	-86	5	40	6	-20
Peanuts	1	12	32	8	7	13	1	48	83	35
Sugar	10	184	214	-65	-246	-25	15	-20	-27	-28
Honey	90	81	89	73	100	42	47	19	21	14
Wool	132	109	123	152	1/ 5	93	104	172	162	183
Operating expense 3/	362	346	457	535	614	620	618	625	7	7
Interest expenditure	1,064	1,435	1,411	1,219	425	98	632	745	675	271
Export programs 4/	743	134	102	276	200	-102	-34	733	1,969	1,982
1989/90 Disaster/	0	0	0	0	0	3,919	2/ 161	121	1,086	0
livestock assistance	1,295	-314	486	371	1,665	110	609	2	466	1,368
Other										
Total	7,315	17,683	25,841	22,408	12,461	10,523	6,471	10,110	10,564	13,094
<b>FUNCTION</b>										
Price-support loans (net)	-27	6,272	13,628	12,199	4,579	-926	-399	418	541	1,066
Direct payments 5/										
Deficiency	612	6,302	6,166	4,833	3,971	5,798	4,178	6,224	5,118	7,718
Diversification	1,504	1,525	64	382	8	-1	0	0	0	0
Dairy termination	0	0	489	587	260	168	189	96	13	0
Other	0	0	27	60	0	42	3	21	327	419
Disaster	1	0	0	0	6	4	0	0	0	0
Total direct payments	2,117	7,827	6,746	5,862	4,245	6,011	4,370	6,341	5,458	8,137
1988/89 crop disaster	0	0	0	0	0	3,386	2/ 5	6	996	0
Emergency livestock/										
forage assistance	0	0	0	0	31	533	156	115	90	0
Purchases (net)	1,470	1,331	1,670	-479	-1,131	116	-48	646	220	199
Producer storage										
payments	268	329	465	832	658	174	185	1	25	24
Processing, storage,										
& transportation	639	657	1,013	1,659	1,113	659	317	394	192	128
Operating expense 3/	362	346	457	535	614	620	618	625	7	7
Interest expenditure	1,064	1,435	1,411	1,219	425	98	632	745	675	271
Export programs 4/	743	134	102	276	200	-102	-34	733	1,969	1,982
Dther	679	-648	329	305	1,727	-46	689	86	390	1,280
Total	7,315	17,683	25,841	22,408	12,461	10,523	6,471	10,110	10,564	13,094

1/ Fiscal 1988 wool & mohair program outlays were \$130,635,000 but include a one-time advance appropriation of \$126,108,000, which was recorded as a wool program receipt by Treasury. 2/ Approximately \$1.5 billion in benefits to farmers under the Disaster Assistance Act of 1989 were paid in generic certificates & were not recorded directly as disaster assistance outlays. 3/ Does not include CCC Transfers to General Sales Manager. 4/ Includes Export Guarantee Program, Direct Export Credit Program, CCC Transfers to the General Sales Manager, Market Promotion Program, starting in fiscal 1991 & starting in fiscal 1992 Export Guarantee Program - Credit Reform, Export Enhancement Program, & Dairy Export Incentive Program. 5/ Includes cash payments only. Excludes payment-in-kind in fiscal 83-85 & generic certificates in fiscal 86-93. E = Estimated in the fiscal 1993 Mid-Session Review Budget based on June, 1992 supply & demand estimates. Minus (-) indicates a net receipt (excess of repayments or other receipts over gross outlays of funds).

Information contact: Richard Pazdalski (202) 720-5148.



## Food Expenditures

**Table 35.—Food Expenditures Estimates**

	Annual			1992			1992 year-to-date		
	1989	1990	1991	Aug	Sept P	Oct P	Aug	Sept P	Oct P
\$ billion									
Sales 1/									
Off-premise use 2/	274.3	296.7	309.0	26.8	25.8	26.8	208.3	234.1	260.9
Meals & snacks 3/	206.3	218.7	227.0	20.6	19.3	19.4	154.9	174.2	193.6
1991 \$ billion									
Sales 1/									
Off-premise use 2/	299.9	304.2	309.0	26.6	25.5	26.5	207.1	232.6	259.1
Meals & snacks 3/	223.3	226.0	226.9	20.2	18.8	19.0	152.1	171.0	190.0
Percent change from year earlier (\$ bil.)									
Sales 1/									
Off-premise use 2/	7.1	8.2	4.1	0.4	5.5	6.7	3.0	3.2	3.6
Meals & snacks 3/	5.5	6.0	3.8	-1.4	4.0	1.6	2.1	2.3	2.2
Percent change from year earlier (1991 \$ bil.)									
Sales 1/									
Off-premise use 2/	0.6	1.4	1.4	-1.1	3.6	4.6	2.7	2.8	3.0
Meals & snacks 3/	0.6	1.2	0.4	-3.0	2.3	0.0	-0.1	0.1	0.1

1/ Food only (excludes alcoholic beverages). Not seasonally adjusted. 2/ Excludes donations & home production. 3/ Excludes donations, child nutrition subsidies, & meals furnished to employees, patients, & inmates. P = preliminary.

NOTE: This table differs from Personal Consumption Expenditures (PCE), table 2, for several reasons: (1) this series includes only food not alcoholic beverages & pet food which are included in PCE; (2) this series is not seasonally adjusted, whereas PCE is seasonally adjusted at annual rates; (3) this series reports sales only, but PCE includes food produced & consumed on farms & food furnished to employees; (4) this series includes all sales of meals & snacks. PCE includes only purchases using personal funds, excluding business travel & entertainment. For a more complete discussion of the differences, see "Developing an Integrated Information System for the Food Sector," Agr.-Econ. Rpt. No. 575, Aug 1987.

Information contact: Alden Manchester (202) 219-0880.

## Transportation

**Table 36.—Rail Rates; Grain & Fruit-Vegetable Shipments**

	Annual			1991 Sept	1992					
	1989	1990	1991		Apr	May	June	July	Aug	Sept
Rail freight rate index 1/ (Dec. 1984=100)										
All products	106.4	107.5	109.3	109.2	110.0	110.0	109.8 P	109.6 P	109.0 P	109.9 P
Farm products	108.4	110.4	111.4	110.7	110.3	110.3	110.3 P	110.3 P	110.2 P	110.2 P
Grain	108.7	110.1	111.2	110.8	110.2	110.2	110.4 P	110.4 P	110.3 P	110.3 P
Food products	103.9	105.4	108.1	108.2	109.4	109.4	109.4 P	109.5 P	109.5 P	108.1 P
Grain shipments										
Rail carloadings (1,000 cars) 2/	26.4	27.6	26.8	27.5	26.6 P	21.1 P	23.7 P	25.8 P	26.2 P	29.8 P
Barge shipments (mil. ton) 3/	3.3	3.8	3.3	3.3	3.8	4.1	4.1	4.8	4.6	3.2
Fresh fruit & vegetable shipments 4/ 5/										
Piggy back (mil. cwt)	2.2	1.8	1.5	1.6	1.8	2.3	1.9	1.9	1.2	1.5
Rail (mil. cwt)	2.6	2.3	2.1	1.6	2.8	3.5	3.7	2.1	0.1	1.8
Truck (mil. cwt)	42.3	41.5	41.9	36.6	50.8	55.7	51.2	43.2	38.9	37.5
Cost of operating trucks hauling produce 4/										
Fleet operation (cts./mile)	123.4	130.5	126.5	122.6	123.3	123.8	124.4	124.8	124.7	125

1/ Department of Labor, Bureau of Labor Statistics. 2/ Weekly average; from Association of American Railroads. 3/ Shipments on Illinois & Mississippi waterways, U.S. Corps of Engineers. 4/ Agricultural Marketing Service, USDA. 5/ Preliminary data for 1992. P = preliminary. — = not available.

Information contact: T.Q. Hutchinson (202) 219-0840.

## Indicators of Farm Productivity

Table 37.—Indexes of Farm Production, Input Use & Productivity <sup>1/</sup>

	1982	1983	1984	1985	1986	1987	1988	1989	1990 2/	1991 2/
1977=100										
Farm output	116	98	112	118	111	110	102	114	119	120
All livestock products 3/	107	109	107	110	110	113	116	116	118	119
Meat animals	101	104	101	102	100	102	105	105	104	104
Dairy products	110	114	110	117	116	116	118	117	120	121
Poultry & eggs	119	120	123	128	133	144	148	153	162	168
All crops 4/	117	88	111	118	109	108	92	107	114	111
Feed grains	122	87	116	134	123	106	73	108	112	106
Hay & forage	109	100	107	106	106	102	89	101	102	103
Food grains	138	117	129	121	107	107	98	107	136	104
Sugar crops	96	93	95	97	106	111	105	105	107	112
Cotton	85	55	91	94	69	103	107	86	109	122
Tobacco	104	75	90	81	63	62	72	71	84	87
Oil crops	121	91	106	117	110	108	89	106	107	114
Cropland used for crops	101	88	99	98	94	88	87	90	90	89
Crop production per acre	116	100	112	120	116	123	106	119	127	125
Farm input 5/	98	96	95	91	89	89	87	87	88	—
Farm real estate	102	101	99	97	96	95	94	93	93	—
Mechanical power & machinery	89	66	65	80	77	74	74	73	71	—
Agricultural chemicals	118	102	120	115	109	111	112	119	122	—
Feed, seed, & livestock purchases	107	103	103	102	109	116	111	113	113	—
Farm output per unit of input	119	100	118	129	124	124	116	130	135	—
Output per hour of labor										
Farm 6/	125	99	121	139	139	142	135	147	142	—
Nonfarm 7/	99	102	105	106	108	109	111	112	111	—

1/ For historical data & indexes, see Economic Indicators of the Farm Sector, Production & Efficiency Statistics, 1986, ECIFS 5-8. 2/ Preliminary indexes for 1991 based on Crop Production: 1991 Summary, released in January 1992, & unpublished data from the Agricultural Statistics Board, NASS. 3/ Gross livestock production includes minor livestock products not included in the separate groups shown. It cannot be added to gross crop production to compute farm output. 4/ Gross crop production includes some miscellaneous crops not in the separate groups shown. It cannot be added to gross livestock production to compute farm output. 5/ Includes other items not included in the separate groups shown. 6/ Economic Research Service. 7/ Bureau of Labor Statistics. — = not available.

Information contact: Eldon Ball (202) 219-0432.



## Food Supply &amp; Use

Table 38.—Per Capita Consumption of Major Food Commodities <sup>1/</sup>

Commodity	1984	1985	1986	1987	1988	1989	1990	1991 2/
Pounds								
Red meats 3/4/5/	123.7	124.9	122.2	117.4	119.5	115.9	112.4	112.0
Beef	73.8	74.8	74.4	69.5	68.8	65.4	63.9	63.1
Veal	1.5	1.5	1.6	1.3	1.1	1.0	0.9	0.8
Lamb & mutton	1.1	1.1	1.0	1.0	1.0	1.1	1.1	1.1
Pork	47.2	47.7	45.2	45.6	48.2	48.4	48.4	47.0
Poultry 3/4/5/	43.7	45.2	47.1	50.7	51.7	53.6	56.0	58.1
Chicken	35.0	36.1	37.0	39.1	39.3	40.5	42.2	43.9
Turkey	8.7	9.1	10.2	11.6	12.4	13.1	13.8	14.2
Fish & shellfish 4/	14.1	15.0	15.4	16.1	15.1	15.6	15.0	14.8
Eggs 5/	33.0	32.4	32.2	32.2	31.2	29.9	29.6	29.3
Dairy products								
Cheese (excluding cottage) 3/6/	21.5	22.5	23.1	24.1	23.7	23.8	24.7	25.2
American	11.9	12.2	12.1	12.4	11.5	11.0	11.2	11.2
Italian	5.8	6.5	7.0	7.6	8.1	8.5	9.0	9.4
Other cheese 7/	3.9	3.9	4.0	4.1	4.1	4.3	4.6	4.6
Cottage cheese	4.1	4.1	4.1	3.9	3.9	3.6	3.4	3.2
Beverage milks 3/	227.2	229.7	228.6	226.5	222.3	224.3	221.7	221.5
Fluid whole milk 8/	126.8	123.3	116.5	111.9	105.7	97.6	90.4	87.5
Fluid lowfat milk 9/	88.8	93.7	98.6	100.6	100.5	106.5	108.4	110.1
Fluid skim milk	11.6	12.6	13.5	14.0	16.1	20.2	22.9	23.8
Fluid cream products 10/	6.2	6.7	7.0	7.1	7.1	7.3	7.1	7.0
Yogurt (excluding frozen)	3.7	4.1	4.4	4.4	4.7	4.3	4.1	4.3
Ice cream	18.2	18.1	18.4	18.3	17.3	16.1	15.8	16.4
Ice milk	7.0	6.9	7.2	7.4	8.0	8.4	7.7	7.3
Frozen yogurt	—	—	—	—	—	2.0	2.8	3.5
All dairy products, milk equivalent, milkfat basis 11/	581.9	593.7	591.5	601.2	582.8	565.2	570.8	564.7
Fats & oils — Total fat content	58.8	64.3	64.3	62.9	63.0	61.1	62.7	63.6
Butter & margarine (product weight)	15.3	15.7	16.0	15.2	14.8	14.6	15.3	14.8
Shortening	21.3	22.9	22.1	21.4	21.5	21.5	22.2	22.1
Lard & edible tallow (direct use)	3.8	3.7	3.5	2.7	2.6	2.7	3.0	3.1
Salad & cooking oils	19.9	23.5	24.2	25.4	25.8	24.0	24.2	25.2
Fresh fruits 12/	88.9	86.8	93.1	97.5	97.4	98.8	92.6	90.8
Canned fruit 13/	12.3	12.7	12.9	13.6	13.2	13.3	13.4	12.3
Dried fruit	2.6	2.9	2.9	2.7	3.0	3.3	3.2	3.6
Frozen fruit	3.0	3.3	3.6	3.9	3.8	4.6	4.3	3.9
Frozen citrus juices 14/	35.7	40.5	43.2	40.2	40.1	34.3	27.2	—
Vegetables 12/								
Fresh	100.6	100.7	99.3	105.7	109.7	112.9	110.9	106.0
Canning	90.9	87.8	87.9	87.6	83.5	90.7	96.4	94.3
Freezing	17.5	17.1	15.8	16.8	18.3	17.6	18.3	19.3
Potatoes, all 12/	0.0	122.4	125.8	125.8	122.2	127.4	127.8	130.5
Sweet potatoes 12/	5.4	5.8	4.8	4.8	4.5	4.5	5	4.4
Peanuts (shelled)	6.0	6.3	6.4	6.4	6.9	7.0	8.0	6.4
Tree nuts (shelled)	2.3	2.3	2.3	2.2	2.3	2.3	2.5	2.5
Flour & cereal products 15/	150.4	157.5	163.7	172.5	174.3	174.9	183.0	184.3
Wheat flour	119.2	124.7	125.7	129.9	130.0	129.2	135.7	135.9
Rice (milled basis)	8.5	9.0	11.6	14.0	14.3	15.2	16.2	17.0
Caloric sweeteners 16/	127.0	131.3	129.6	133.7	135.1	136.4	139.1	140.2
Coffee (green bean equiv.)	10.2	10.5	10.5	10.2	9.8	10.3	10.2	10.3
Cocoa (chocolate liquor equiv.)	3.4	3.7	3.8	3.9	3.8	3.9	4.2	—

1/ In pounds, retail weight unless otherwise stated. Consumption normally represents total supply minus exports, nonfood use, & ending stocks. Calendar-year data except fresh citrus fruits, peanuts, tree nuts, & rice, which are on crop-year basis. 2/ Preliminary.

3/ Total may not add due to rounding. 4/ Boneless, trimmed weight. Chicken series revised to exclude amount of ready-to-cook chicken going to pet food as well as some water leakage that occurs when chicken is cut up before packaging. 5/ Excludes shipments to the U.S. territories. 6/ Natural equivalent of cheese & cheese & other dairy products. Includes miscellaneous cheese not shown separately.

7/ Includes Swiss, Brick, Munster, cream, Neufchatel, Blue, Gorgonzola, Edam, & Gouda. 8/ Plain & flavored. 9/ Plain & flavored & buttermilk. 10/ Heavy cream, light cream, half & half, & sour cream & dip. 11/ Includes condensed & evaporated milk & dry milk products.

12/ Farm weight. 13/ Excludes pineapple & berries. 14/ Single strength equivalent. 15/ Includes rye, corn, oat, & barley products.

Excludes quantities used in alcoholic beverages, corn sweeteners, & fuel. 16/ Dry weight equivalent. — not available.

Information contact: Judy Jones Putnam (202) 219-0870.

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